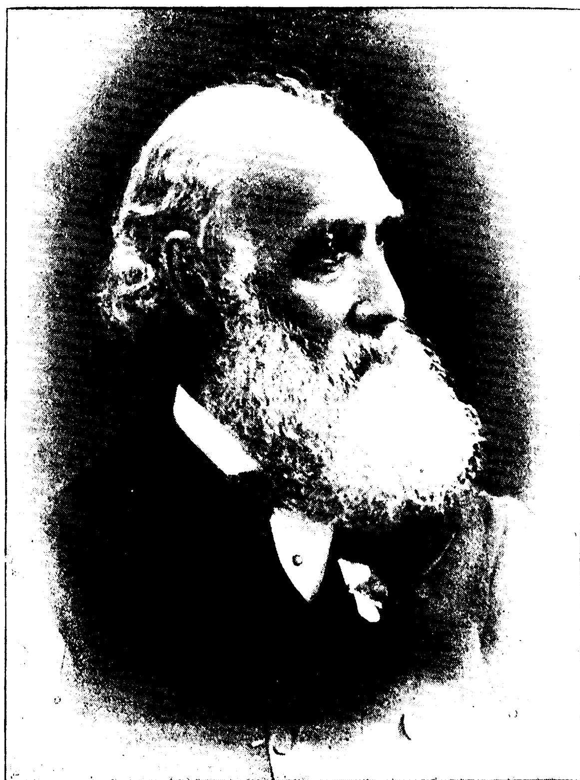


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HEALTH,

HAPPINESS, AND LONGEVITY,

HOW OBTAINED, EMBRACING STRICTURES ON

DIET AND HABITS,

Selections from Authorities Ancient and Modern

LESSON ON BODILY HEALTH,
BY MRS. HARRIET BEECHER STOWE;

ADDRESS ON SANITARY FELICITY,
BY B. W. RICHARDSON, M.D., F.R.S.

By ARCHIBALD HUNTER,
Bridge of Allan Hydropathic Establishment.

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PREFACE.

In writing a treatise on such a subject of universal interest as Longevity must be to the intelligent mind, I have considered how I may put my thoughts into the most practical language, my object being to share with all who are willing and able to receive from my long-gathered stores of knowledge—knowledge which I so earnestly feel may be in the possession of each and all who are open to the lessons of experience and enlightened observation. For I offer to the consideration of my readers the results of a life spent in mental and physical activity, with more than the usual opportunities for the study of the present subject, also with personal, social, and professional experiences of life, and its varied necessities and capabilities, which give me a position and power to speak with the authority which the importance of my subject demands.

A short account of my individual experience may be both interesting and instructive to those who may not be personally acquainted with me. To such the motive in speaking of matters so purely personal will be apparent enough: to my many friends and sympathisers whom years have brought around me,

and who have strengthened me by their confidence and affection, this brief retrospect may be still more acceptable.

My first twenty years were spent in continuous activity of body and mind, but, like too many in the present age, under occasional overstrain, with irregular diet, etc., gathering knowledge on every hand, applying the same as I had opportunity, correcting half-formed ideas, constructing and reconstructing new theories of life and its purposes—in short, growing into manhood with all its possibilities. A strong bias to the medical profession, the probable result of early companionship, with a natural desire to remove many hindrances to the full enjoyment of life, was prevented by family reasons from taking effect in pursuing the usual collegiate course. But attendance of an interrupted kind at the physiological and anatomical classes, after several years' private study of the various medical subjects, served to prepare me so far for my yet unforeseen career as a teacher of the laws of health.

The second twenty years of my life were marked by events which, indirectly, drew my whole attention from business pursuits into the more and more clearly appointed duties of my present work.

Myself, far from robust, with hereditary tendencies to asthma and throat affections, while often suffering from indigestion in its many phases, and constipation *(the bane of our present age)*, with great anxiety and decreasing confidence in the usual remedies, during repeated severe visitations of family sicknesses, I *was*

led to the knowledge of the simple processes of HYDROPATHY in 1842. Its wonderful efficacy in several instances among my own family and friends, gradually drew me into a closer study of the natural laws which it illustrates. I found much in the earlier features of the water treatment that was partial and extreme: I learned that no two cases could be treated exactly alike, while recognising certain *first principles* which underlie *all* curative processes.

Becoming year by year more conversant with the capabilities and adaptabilities of the new treatment, I gained confidence by success, and was accustomed to increasing calls upon my time and knowledge, where the usual resources of medical skill were baffled. Such of my early friends who are still left may recall with me these first fruits of my new labours, and the fervent gratitude for valuable lives saved as by a miracle; for, indeed, many of these early cases were hopeless cases, and but for their very hopelessness would not have been attempted. But while I was being drawn more and more into this congenial pursuit, I found that the time had now come when I must either give up what had become an engrossing pleasure, or devote myself to it as the business of my life.

My first attempt being sufficiently encouraged by a large and increasing circle of friends and patients, I was led to extend my sphere of usefulness, and secured a lease of Gilmorehill House and grounds, now occupied by the University of Glasgow. This was in 1856, and in this commodious mansion I remained

during the following ten years, only giving it up when it was required for its present purpose. These ten years were perhaps the most active years of my life; the number of resident patients averaged twenty; while visits to the town and neighbouring districts drew largely upon days that knew but little leisure. The house had already become too confined for the comfort of the visitors and my own family, when I was forced to leave what had been to me the scene of much keen pleasure and success. I came to Bridge of Allan in 1866, where I have endeavoured to follow out the same course as at Gilmorehill: striving to teach my patients how to attain and maintain health for usefulness by habits of wholesome and natural life.

Experience has taught me that life is only to be enjoyed in proportion to the unselfishness which prompts us to be useful, helpful to those around us. If we have anything precious we must share it or lose it! We cannot lock up ANY of our treasures without suffering the usual miser's reward—care and anxiety, which may correspond to fever and congestion in the physical world. But I have also learned how much any system of curative treatment falls short which does not embrace the *whole* laws of life. Many of my patients I find suffering from causes upon which *no* medical school has given any sign. There are sins of omission as well as commission in the physical as well as the spiritual; ignorance and obtuseness to Nature's requirements and duties have developed in many—unnatural, unhealthful conditions. Of these I

shall treat more at length, knowing how much happiness and enjoyment is lost to humanity by the neglect of essentials.

I have given much attention to the question of diet, regarding it as one of the most important curative as well as preservative agents. Searching into the causes of ill-health in many thousands of marked cases during the last thirty years, I recognise, in a very large number, unhygienic habits of diet to be the ulterior cause of the disease. It is not sufficient to remove the present pains and penalties resulting from a long course of error in diet, etc., the physician must endeavour to lead his patient back to simpler, more natural, therefore more healthful ways. He recognises pain as a kindly warning, and looks back to see where his patient has gone off the straight path.

My own health has meanwhile improved year by year, which, I may truly and thankfully own, is mainly the result of better habits of diet, a uniformly, but not overstrained, active life, with the conviction that my own experience gives me a power to help others. All the disagreeable symptoms of my early ailments have disappeared; I can digest any ordinary article of food provided I give it sufficient time; I travel frequently 200 or 300 miles in the week by railway, hat off, and windows open (if not disagreeable to others); my town visits involve an average of six to eight miles' walking, and this at the least three times a-week; my mental work includes much earnest correspondence with patients at a distance, besides consulting with others from day to day, who come to me often

ignorant of everything about themselves but their discomfort or their pain, and whom I endeavour to send home with a new hope and purpose in life, or, at least, with such knowledge of themselves as may enable them to avoid falling again into their present condition. All this work, involving much hard thinking, with minute instruction to patients and attendants, requires strict attention to my own bodily condition. This I maintain satisfactorily without the use of drugs or flesh-meat, or alcohol in any form. *All these* I look upon as *mere stimulants* to the nervous system, only to be employed in rare cases, and seldom without injurious after-effects. Since abstaining from flesh-food, now several years, I find a marked improvement in every organ and function of body and mind.

However, I partake moderately of fish of almost every kind, and this without the disagreeable results attendant on a flesh-diet. I have always found baked or roasted fish an excellent food for invalids, especially when suffering from inflammatory ailments or chronic dyspepsia. Also, in a due proportion of fruits and vegetables, especially at the morning meal, I find the natural remedy for constipation, this being generally the result of a drying-up of the natural secretions, from the use of over-stimulating food and drink.

The increasingly large consumption of sugar, salt, spices, hot and heating liquors of every description, all tend to dry up the juices and secretions of the body, and are thus the common beginning of much ill-health, unhappiness, and shortened lives. Modera-tion in the use of these, with a by no means slavish

attention to the principles of health, such as have been deduced from my own experience and observation, give an increased satisfaction in life and in all *natural* enjoyments. Food never was so sweet; activity in moderation never so much enjoyed, and that with a spring and vigour usually supposed to belong only to youth; sleep is sound and refreshing, and life and nature never revealed so much of the beautiful and the wonderful. And surely this enjoyment of life is open to all, or nearly all, who have reason and a fair stock of vitality with which to start in the race! But let it be ever remembered that this race is not always to the swift nor always even to the strong, but to him who *trains himself* to walk in the ways of life.

I have to thank various writers for permission to include extracts from their works, as also for the co-operation and sympathy I have received from many of the more liberal-minded members of the Allopathic and Homœpathic schools. I can only wish that the *principles* of Hydropathy may be made more widely known, not as in itself a panacea for all diseases, but as, where employed with due discrimination, the only true and natural agent for restoring healthy *conditions*, and thus allowing Nature to repair, to reconstruct, to *make whole* what has been broken down in her buildings, through neglect or rough usage, or over-work. Hydropathy as a science—and as a science and art alone can it be studied with intelligence and applied with benefit—may be condensed, as to its principles, to a few words which the

simple may remember and the observant put into practice. But the term is in itself incomplete, since it requires and draws upon, to the full, all natural agencies as it has occasion—diet, exercise, proper clothing, etc., etc.

But again I must claim for Hydropathy that it be studied with care and discrimination, not trifled with as a familiar agent, to be undervalued *because* familiar.

No system is so capable of wide extremes in its practice, ranging from the hot-air or Turkish, or the Russian or vapour bath, to the cold douche. In every case the treatment must be modified by individual conditions, and followed by that sensation of COMFORT which precedes the return of improved health. Much harm has undoubtedly been done by carelessness or ignorance of the general laws of physiology, and discredit and distrust have sometimes been the natural result. Yet these accidents, incidental to a partially understood system, have not hindered the rapid spread of the great truths which it illustrates, as witness the thousands of invalids who annually resort to Establishments in England, Scotland, France, and Germany, not to speak of America, where they form an immense and growing Social Institution for Sanitary Reform.

The fact that so many of our Scotch Establishments (luxurious resorts of fashion rather than retreats from care and business or household labours) have succumbed to the pressure of hard times, ought not to mislead society as to the true cause of their failure.

Hydropathic only in name, or using this term as a merely secondary attraction, where the surrounding charms of fine scenery or local interest were insufficient in themselves to draw visitors, they have proved how utterly erroneous are all the calculations based upon the previous success, while overlooking the claims of genuine Curative Institutions.

Here we have, and always may depend upon, a continuous and steady attendance of visitors, of whom a large and still increasing proportion are seeking the means of health, who send their friends and acquaintances to benefit by the health which they have experienced, and who, apart from local advantages of climate and beautiful surroundings, come chiefly for the benefits of Hydropathy. This is also proved by the numbers who are sent by their own medical advisers, after exhausting the means within their knowledge or reach.

Only with many extraneous and exceptional advantages can any House prove a success financially without the regular and steady support of that portion of society which knows no SEASON, and would as soon come in their need when the place is quiet as when crowded. Thus it has been proved by the lamentable failures of late years that not making the *curative* element a *primary* feature, the *commercial* basis is otherwise too narrow a foundation for success. Whereever this has been done, and due attention paid to the subject, a steady influx of visitors is the natural result. But these institutions are still in their infancy, and their enterprising projectors may yet find much to improve before they make them the social benefits,

which they are capable of being, as Health Resorts for the physically and mentally sick.

But even with their present conditions these houses are a great boon to the general public, providing them with the latest modern advantages of comfortable Boarding-houses, with agreeable society, and without the care and trouble of the usual domestic duties. For many, this last is a welcome relief, especially for those who are only "out of sorts," and requiring rest from the every-day labours of home life. A fortnight or a month at any of these pleasant resorts will do much to give tone and elasticity to the nervous system, if taken in time; and where regular suitable Hydropathic treatment can be procured at these periods of rest, many phases of serious illness may be averted, and health restored to its normal condition for usefulness.

But very much depends upon the maintaining, as much as is practicable, of the Home-elements of such houses, and the supplementing rather than substituting artificial luxuries for the natural conditions of domestic comfort.

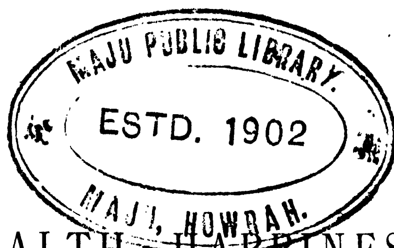
This can be most easily attained in a moderately-sized house, where the visitors are not too numerous for each to become acquainted with the others, and so find congenial companionship for all, which is more difficult in the larger establishments, in which one feels lost in a crowd of strangers.

Generally speaking, it will be found the best policy to give attention to the *comfort* of the visitors rather than to cater for imaginary ideas of luxury and display.

Where this is the rule the house will draw a continuous run of visitors, who will find it to their advantage to come and come again, even though the novelty of the place has become familiar, and who will return as to a friend's house, where they feel always welcome and at home.

A. H.

BRIDGE OF ALLAN, *May 16, 1885.*



HEALTH, HAPPINESS, AND LONGEVITY.

INTRODUCTION.

REFLECTING on the many mistakes which affect life in regard to health, happiness, and longevity, I have a strong desire to draw attention to the more neglected causes of ill-health, premature decay, and death, since I feel convinced that much greater enjoyment may be easily attained, by the majority of mankind, by observing and respecting a few leading, controlling influences.

In the fervent hope that I shall attain my object, by helping others to help themselves to a larger share of life's true pleasures, I have taken advantage of the teachings of many earnest, forcible writers on this paramount subject, while adding to these my own varied experience of threescore and ten.

And, first, one common mistake into which many earnest teachers have been drawn, by their very earnestness, is to give undue prominence to conditions of *minor* importance while overlooking *essentials*.

Man is many-sided, and depends for life, health, and happiness upon many laws, both negative and

positive in their demands, indirect and direct in their results.

Thou shalt not breathe impure air.

Thou shalt not eat nor drink to repletion.

Thou shalt not be indolent.

Thou shalt not indulge thyself to excess in *anything*. And so on through the natural calendar of instinctive prohibitions. Thou shalt breathe pure air; eat in-moderation such things as are good for health and usefulness; maintain active habits throughout life; attend to the purity of body and bodily clothing; see to due warmth, to salubrity of house and surroundings, etc., etc.

One evil habit or neglect of vital law will nullify the *whole*, as a leak will sink a ship as readily as a storm.

Purity of atmosphere, purity of food, together with a due proportion of activity of mind and body, cannot fail to attain and maintain, in the average individual, the enjoyment of health and long life.

Meeting frequently with persons, in age from sixty to ninety years, who rejoice in the full possession of vigorous health, I am deeply impressed by the fact of this possibility to *all* who will keep the law in its entirety. But I turn from these eminent examples of physical virtue, and view with increasing sadness the thousands, who are suffering from the results of ignorance; from indulgence, *in excess*, of *wholesome* pleasures; from injurious habits, which involve annoyance to all around them; or from misdirected exercise of our noblest functions.

Many of these habits are slow in their action, but

none the less fatal. Improper food, improper drinks, narcotics, as tobacco and opium, by small degrees are daily shortening the lives of many, whose years are embittered by their injurious results. If they could but realise how much of this bitterness is the fruit of indulgences, which give but a fleeting pleasure—if they could but know how many days, months, years they are subtracting from their earth-life, it may be, many would avoid these avoidable evils and "consider the end." In a great measure, we may say, that God commits our lives into our own keeping, bestowing upon us that intelligence or reason, which, if listened to, will guide us into the ways of life; but reason is too often neglected, that the lower nature may be satisfied in its *un*reasoning desires. Thus the wicked man (it may be only physically wicked) does not live out half his days.

Health is man's birth-right, and its absence indicates the violation of one or more of the laws of life, which we might learn instinctively, by sensation and observation, as we come to the years of discretion; previous to which period, we are supposed to be under the guidance of parents and teachers. Sensation guides us in avoiding excess of either heat or cold, while the discomfort, arising from such conditions, impels us to correct our errors, and hasten back to the safe path of moderation. In the like manner we are warned from over-indulgence in eating and drinking, as well as in over-activity and indolence. In all these, each man must be a law unto himself, since what is moderation in one may be excess in another.

Over-excitement of the passions is followed by physical exhaustion and loss of sleep; in due course re-acting on the system generally, till the whole man is worn out prematurely: without duly recurring and sufficiently long intervals of dreamless oblivion—Nature's own best restorative—our whole constitution is broken down by over-work, till we find ourselves without hope for *this* world, and looking forward to the next, chiefly, as our longed-for rest.

In forming correct habits of life, we are greatly dependent on our *parents*, *teachers*, and *early companions.* We inherit predispositions, which, if not moderated or restrained, incline us *not* to keep the laws of life; while, it may be, we are not taught these laws, our guardians and teachers being as ignorant of them as ourselves. Life embraces many stages or ages, varying in conditions equally divergent, physically and mentally. We gradually grow out of the animal, a first stage of existence, wherein eating and sleeping are the main processes of life; then comes youth and developing mentality, demanding an outlet for freer activity and out-door life. Similar conditions exist throughout Nature, governed by similar laws; in the plant these laws may be more simply and narrowly defined, with limitations to its upward and downward path—limitations which we are accustomed to call *Instincts.* In the lower animal world we find these limits have been widened, with a proportionately greater liberty of action; but in man, instinct is merged or developed into the thinking faculty—*Reason*, which gives him the power of choosing what

is best, or seems best, for his purpose. The powers of reflection, consideration, prudence, and foresight are, in man, united in such a degree of excellence, that his nature is, so far, removed from the merely animal world as to constitute him the Head, or Governing Power, over his less favoured fellow-creatures. These are under his protection, that they, who are capable of improvement, may be elevated with him, and by him. "The whole creation groaneth and travaileth to be redeemed" from its worse than Egyptian bondage, and MAN is the appointed leader who shall open up a way to its new life, by going before. Hitherto man has perverted this power, this Divine-given commission, and sought only his own gratification, to his own hurt; yet, till he returns to first principles, and seeks out the true laws of life, he will go on, increasing pain and sorrow and misery to himself and all around him.

This present age of civilisation may learn much from earlier attempts to elevate humanity; "holding fast that which is good" in the past, we may still press forward and upward into clearer air, where we may have wider views of the true and the good. Moses, with his far-reaching statutes, providing for the safety of the poor of his people, the stranger in the gates, the prisoner of war, even the beasts of burden—with his much-needed and religiously-exacted sanitary laws—laws that have not yet been excelled in any country or nation—with his marvellous knowledge of human nature and its necessities and capabilities,—may be studied from a new point of vision in these days of

reform and revolution. For the few who regard this life as a means of elevation into a higher, this study may be found helpful; for the many who will not consider the end, in their haste to make rich for this world, there is neither leisure nor desire. "He who keepeth the law *knoweth* that it is good."

Mankind is *One Body;* if one member is wounded or in trouble, the whole body must suffer. General health includes individual health; local weakness entails general suffering, present and in the near future. We are all bound up in one "bundle of life;" the closer we hold up each other the stronger we are in unity.

But that we may help each other, we must be ourselves in the way of the law. "And *when* thou art *converted* (turned with your face in the right direction, HEALTHWARD) strengthen the brethren."

CHAPTER I.

LIFE ON EARTH A PROBATIONARY EXISTENCE.

ADMITTING our existence in this wonderful theatre of the universe as evidence of a Divine Author and Source of our being, we may reverently enquire what is the PURPOSE OF END of that existence, and seek to fulfil it, with what intelligence and capacity we may possess.

From the infinite proofs of some one grand design, including the wonders of the heavens, sun, moon and

stars circling in their harmonious orbits, and ever "singing as they shine" of their Creator's omnipotence and unsearchable wisdom, down to the equally marvellous minutiæ of nature's perfections in every budding leaf, in every grain of corn—proofs around us, within us, above us, which compel us, if we think at all, to own the omnipotence of One Controlling Power, One Originating Spirit, ever upholding His works by the might of His own strength — we see all our wants supplied in food and raiment, warmth, and light; while a thousand elements or materials, for our daily comfort and delight, lie waiting to be possessed by us, as our minds open to their uses. We turn to the fields and we behold the bounty of a Father's hand, covering the earth with plenty for man and beast; we turn to the mountains, to the ever changeful ocean, and our minds are lifted up, above their mere material desires, to the heavens; from the footstool of the child-sphere we rise to the throne of glorified humanity. With new powers, invested by developing intelligence—it, again, prompted by the urging spirit of wonder, as the child questions the man with his ever-present, ever-provoking whys—with new contrivances of enlightened ingenuity and devoted skill, we pierce the once unknown heavens, and learn, with every new discovery, how true are the psalmist's words, "How unsearchable are Thy riches! Thy ways are past finding out." Yet, if we but take the child-spirit with us, we are able to realise in a measure the goodness as well as the greatness, the love as well as the wisdom, of our loving Father, who formed us, and

all that exists, as objects and outlets for His loving nature.

But as, in all around us, we see shadow and sunshine, never far apart—each the counterpart or set-off to the other—so are we led to enquire into the causes of the misery and discomfort which are operating everywhere. The poor man cries aloud, but his cry falls back upon his weary heart; the sick pine in wretched pain, but no one attends; the hungry beg from door to door, but none open to him or give him welcome, till despair and weakness give way, and they say, "Where is this Father who, you say, heareth all things and seeth all things, yet leaveth us, His children, to perish?" and the wicked answer, only too eagerly, "There is no god, there is no ruler, all is blind chance!"

"The Judge of all the earth" cannot but do right. His plans never fail: therefore all things MUST work together for ultimate good, although His wide-stretching plans may be—ARE—beyond our present powers of comprehension. Creation and all that exists may change and change, and be renewed eternally—still not one detail of the grand design can be lost or fail of its Author's purpose.

Man's life, in the individual and in the race, is progressive and developing in experience, and should be increasing in wisdom and happiness; knowledge enriches its possessor with added power; but goodness, when united with a knowledge of *ourselves*, and a subjugation and control of our senses and affections, gives freedom and ability to exercise our faculties in

higher and higher pursuits, till the spirit rises into its true place, and looks upon the opening prospects of the approaching, the real life—the Eternal.

We begin, even now, to understand somewhat of the Divine plan, in permitting evil to exist in this probationary or preparational life. We are at school here, developing our powers of usefulness and capacities for enjoyment, hence the repeated trials or tests of our various faculties; but for these examinations into our proficiency, we should never know our ignorance or our weakness. If no earthly father, worthy of the name, would spare the hard tasks or the crucial tests of the periodical examination, from fear that his child may be defeated or put to shame, but would rather give all needful help to master the prescribed subjects, and then wait quietly, looking on to see the issue; so may we not judge our Father, who is very love itself and very wisdom itself, to have a more honourable contest in view for HIS children—that the whole man may be trained into the governance of the spirit, and so made fit, in the highest degree possible, to enjoy the fulness of life which awaits him. "To him who OVERCOMETH will I grant to sit with me in my throne." "At Thy right hand are pleasures for evermore." Yet we must lay our account to passing through many and varied temptations or trials, difficulties and valleys of humiliation, before we even reach the foot of the Holy Mountain, upon which dimly appears, through the veiling mists of our own humanity, the Divine effulgence of the Rising Sun. Patience—suffering—must have her perfect work,

that we may be purified from all downward desires, lacking nothing that we require for the higher and fuller sphere of usefulness and enjoyment.

For we must surely feel how insipid, how shallow, how short-lived would be any enjoyment apart from active USEFULNESS! To what end would all our training be, in this life, if we were to remain mere spectators, mere lay-figures in an infinite crowd of pleasure-seekers, even though heaven were the scene and "glory alleluia" the never-ending strain? I fear the best of us, the most easily content among our most phlegmatic Christians, would tire by and bye, and cast back wearying, longing wishes for "something to do." But happily we have a Father whose delight is in developing the powers of his children, and in whose kingdom will be found work, congenial to every taste and every capacity. All shall find their true vocation, and rejoice in the work of their hands, sharing with a bounteous heart the results of their skill and industry, rejoicing in the highest delight vouchsafed to man, the delight of "ministering" to all who need his help.

Time is measured off by observing the revolutions of the sun, moon, and stars, and consists of a series of endless changes. But time *seems* long or short according to our mental states or conditions. See how all consciousness of passing time is obliterated in hours of joy or peace, in happiness or felicity! Even, now, our satisfaction in life is intensified by a condition of occupation, in which all our faculties are concentrated upon our present pursuits.

And in heaven, in the life of the purified spirit, with our whole nature quickened into keener perception of the enjoyments of our new existence, we shall find free outlet for all our powers—not one shall be left waiting for work. The eternal NOW must be enjoyed in endless, useful researches and operations, all tending to some good end and some fuller enjoyment.

Christ's teaching everywhere illustrates the connection and continuity of our present interests and occupations with our future life. Heaven must begin for us on earth. The prudent use of our talents here is rewarded by increased power or capacity in heaven; but this increase of power is still for *use*. "Thou hast been faithful over a few things, be thou *ruler* over ten cities." "Enter thou into the joy of thy Lord." And what, then, is it to enter into this joy, this delight, this happiness of the Universal Lord, but to share with Him, according to our increased capacity, in His ever-active operations, His continuous benevolence to all His creatures?

We read in many places, in our Holy Scriptures, of angels (who are indeed but messengers), sent forth to minister unto those on earth, evidencing the universal law of life, that there can neither be enjoyment, peace, nor rest on earth, or in heaven, without active usefulness: here, as a preparation or development of our higher nature; there, as a reward and promotion to yet higher developments, for yet higher work. While sin, evil, or suffering exist in this, or any other world, the inhabitants will never be without this labour of

love. The happiness of those above will become broader and fuller by the happiness, the salvation of every lost sheep; and while the Universal Father makes use of many messengers to fulfil His will, in heaven all share in the joy over every repentant child.

The conviction is irresistible, that in proportion to our development here will be our power for usefulness there, and our capacity for enjoyment. True, that all life has its full share of this enjoyment—"God's mercies are over all His works." The tiniest insect that hums in the summer air; the homely sparrow that chirps at our door-step—all nature is animate with His joy, and filled with His life. But not one of His creatures is wanting in purpose: each has an end in life—a place in the grand plan of Creation; and in harmony with the capacity of each, is its use. From the least even to the greatest, all are, consciously or unconsciously, fulfilling His word, ministering unto His glory, and doing His pleasure.

Providence embraces all under One omniscient rule. A sparrow cannot fall to the ground, nor an angel leave his place beside the throne, but in the order and under the controlling power of an ever watchful Father.

"God reigneth, let the earth be glad!"

"The Lord is good to all, and His tender mercies are over all His works."

CHAPTER II.

USES OF LONGEVITY.

"WHAT man is he that desireth life, and loveth many days, THAT HE MAY SEE GOOD?"

"What is man that Thou art mindful of him, and the son of man that Thou visitest him? Thou hast made him a little lower than the angels, and hast crowned him with glory and honour. Thou madest him to have dominion over the works of Thy hands: Thou hast put all things under his feet!"

"In DOING good, there IS great reward."

It is a bitter truth—indeed, a truism—that long life, without the means or the capacity of enjoyment, is but a questionable blessing; yet few are so utterly miserable that they would willingly shorten their days, however these may be dragged out in pain, or poverty, or weariness. In our times, we scarcely allow a man, however desperate he may be, to count his life as his own; attempted suicides are punished as criminals, or placed under supervision, to prevent injury to themselves, by themselves. We look on the poorest, vilest life as something SACRED—not to be given up, but after the most strenuous efforts to retain what may often seem worthless to the owner and to society. Yet what shall a man give in exchange for this—his one greatest gift—the seed-corn of a possible endless life of angelic bliss! Few persons there are who can look back without regret on account of sins or faults of youth; fewer still who cannot raise a song of thank-

fulness for the loving-kindness and mercy which have upheld them from despair and death, and led them into paths of hopefulness and renewed life.

The mind of every thoughtful individual must often be turned to the question of his purpose or use in life; to what good for himself or others is his existence, and how may his happiness be attained in a longer or shorter sojourn here. That all forms of life have a limit to their duration, is evident. Each has a germ derived from its parent, be it plant or tree—bird, beast, or man; each proceeds in a defined and orderly course from one stage of existence, from childhood to maturity, more or less prolonged, and then passes away to give place to a new generation of its fellows. This is the rule of life: birth, maturity, death—the natural sequence or order of all that exists. That there is pain or disappointment, failure or regret, is due to our ignorance of the laws of life, by which we may learn how to take the full use and enjoyment out of life, rather than "spend it," as many of us do, "for nought," learning its value,—as we feel it slipping from our grasp.

All are conscious of a desire for something beyond what they possess, a something which draws them outward and upward from the inert selfishness of their lower nature. This nature—the basis or foundation—the root which binds us to earth and nourishes us with the only sustenance possible or suitable to our growth—while it has its use, and is to be reverenced in its own place, must be guarded against if we would attain the END of our being. We do not carry the

foundation above ground, but BUILD on it our dwelling-place. We keep our tree roots well covered up out of sight, and rejoice in the branching foliage and the autumn fruit. And this nature which we have from our father and mother, we must rise out from and leave behind us—"FORSAKE IT"—if we are to reach the higher life of our true manhood. Again, all our affections, which constitute our very life, have some use, and IN THE USING some enjoyment peculiar to each. But our danger lies in seeking this enjoyment apart from their use.

Eating and drinking are the necessary and appointed means of renewing our daily strength, which strength has its lawful outlet in the various industries connected with our comfort and position, as care-takers of the world we inhabit. But if we neglect the first duty of man, the first command of our Creator, to bring the earth into order, and improve it as our dwelling-place, we have to find other and less healthful, less elevating outlets for our activity, or sink into indolence and apathy—fall back upon ourselves. Then eating and drinking become an end instead of a means, and we invent excuses, and blind our true instincts with false reasoning for the indulgence of these our lowest appetites, till we live but to eat, rather than eat to live.

This earth has been given to us as a fit state for our rudimentary nature, and rises or falls with us, as we rise above or sink beneath our possible conditions. Running to waste, the prodigal luxuriant waste of a gross sensuous nature, often followed by periods of sterility and death, it is always capable of practically

unlimited cultivation and improvement—of being made fruitful and beautiful, a perfect Garden of Eden, fitted to maintain a multitude of happy beings, who have come to learn and obey the laws of their own nature, and the universe in which we live, move, and have our being.

Man's first lesson begins in the nursery—to know, control, and govern himself. Discovering very early in life, from growing observation or bitter experience, that his lower or animal life inclines him to gratify his self-will in eating and drinking, while indulgence increases his desire without satisfaction, he learns to restrain these propensities, and seeks for other outlets in the active exercises of youth. These again have their course, and the mind runs on, ever pursuing some new desire wherewith to give it the satisfaction, for which its instincts crave as for life.

The anxious question arises, again and again, all through life, as the psalmist expresses it—"Oh, who will show us any good?" or who will or can tell us of, or give us, some heart-satisfying possession, which will *content* us and fill our souls, since we find that every earthly attainment loses its charm almost as soon as we acquire its possession? yet the insatiable thirst for SOMETHING to satisfy the longings and cravings of the divine instinct within us, keeps us continually active and useful to ourselves and fellow-creatures, in providing things needful for this life.

And even these unsatisfied feelings which we experience in attaining our desires, awaken the mind to consider, and turn our thoughts and aims to that, to

which God our Father is ever striving to draw us—to the loving communion of the soul with Himself. It is for this He has formed us, that we may become like Him, by our own individual choice of what is good—god-like—and thus be partakers of His nature, as children filled with their Father's spirit. For this great end He has sent us into this world, as a preparatory sphere of existence—as that best fitted to develop our powers, and as introductory to the higher, the real and eternal life, as His child, His son.

Now, even in this life, we may secure a considerable amount of true happiness from our knowledge of what elements or affections are its basis. In so far as we elevate our affections and subdue our animal or lower nature, by attaining to the higher—in so far as we *regenerate* ourselves by overcoming the selfish motives which control our desires—in so far as we open our hearts, our affections, to the full entrance of the divine, the unselfish—even so far shall we be made partakers of that peace and joy which alone constitute heaven. Filled with the Father's spirit, the spirit of truth and good, we turn to express or manifest that spirit, by our constant and thorough service of love, to our Father's children—our neighbours. Thus we experience, in an increasing measure, that "heaven is not here or there," but WITHIN us; independent of time and space, a condition of peace, joy, and love.

To some the thought may arise, that life, short or long, is of small consequence, if only we abstain from wilful wrong-doing, and are willing to do what is right; but how can we tell how much or how long we

require the experience which this life can alone give us, or how much good to our neighbours we may miss by our indifference to longevity?

If each of us should so live that he leaves the race richer than he found it, then surely the longer life must have the ampler opportunity. Every experience, every corrected error, every subdued passion, gives a new element of goodness and usefulness. From every failure—acknowledged as failure—we rise to renewed effort, and with redoubled attention to our Great Example we strive to attain that which we have not yet attained—perfection. "Be ye perfect, even as your Father in heaven is perfect." Thus it is not only desirable to attain long life, but commendable, in so far as our aim is the expressing, to our utmost ability, the divine spirit of love to our fellow-creatures, and the consequent attainment of a larger portion of that same spirit into our own life.

CHAPTER III.

LONGEVITY ATTAINABLE.

THE history of mankind, under its many conditions in past ages, is alike interesting and instructive. The tribal, patriarchal, or family life, seems most conducive to physical comfort and duration—each family living under its own "vine and fig-tree." But men early feel the drawing instincts of society and companionship out of their own narrow sphere, and find, in

the combined influences for good and evil of city life, that new attractions discover new temptations. Hence arises the need of organisation for safety and defence, of the weak from the strong; involving new forms of government, with more or less arbitrary power; which again is liable to misuse or abuse, since there is no affection so misleading as the love of power.

Happiness and long life we find inseparably conjoined with the unselfish, or doing to others as we would wish them to do to us. Forgetting this truth, men have sought, by domineering over their fellow-creatures, to pervert the very end of their existence, absorbing everything that was reachable, to the ruin and destruction of their neighbours.

The age of commerce, and the manufacture of articles of use and luxury, have further developed the faculties of men, and the result has again often been the over-concentration and debasement of the masses; and from this want of a due consideration by inventors and trade-rulers of the duty devolving upon them to reciprocate with the workers in the social rewards of their combined mental and physical labour. Head and hands are mutually serviceable, and require each its own quota of rest and refreshment.

Our happiness is increased only in proportion to the comfort and happiness which we are the means of imparting to others.

The pursuit and acquisition of wealth and power for their own sake, forgetting that these bear with them a responsibility of using them as means of benefitting others, will only entail our condemnation for mis-use

of the influences, talents, committed to our charge by a higher Ruler.

We feel impressed that these first principles—peace of mind, and a conscience void of offence towards God and man, are the essentials of good health, long life, and happiness.

The strain of this age after riches, in order to attain the luxuries and ease which riches are supposed to bestow; the many and various indiscretions in eating and drinking in connection with the hurry and bustle of business-life; the consequent early exhaustion of life-power; the stimulation of life-power by fermented liquors, medicinal tonics, improper food, etc.; the loss of sleep, resultant from over-tasked nerves; premature old age, at a period when the man should be in his prime;—what a picture of society as it strives, and pushes, and ignores its true instincts, and misses its true happiness! At the present day, there are two opposing influences which, in their result, alike waste the vital capital of society. Alcohol, including all stimulating meats and drinks, draw upon man's strength by over-action of the nervous powers. Tobacco, opium, including all narcotics—either used medicinally, or from sensuous enjoyment—debilitate by lowering the nervous system, soothing it for a time, but afterwards producing a more irresistible craving than before, till the pipe and the glass are alike masters of the man. Narcotics deaden all desire for other sensuous enjoyments, and have, from this cause, been considered a lesser evil than the stimulating effects of alcohol; but it must not be forgotten that all such artificial peace-

makers are directly injurious to the individual, unfitting him in a degree for the active duties of life, by enabling him to find his pleasure in selfish and absorbed enjoyment.

Narcotics depress vitality and growth, and especially should they be avoided in youth, before the frame has attained its mature vigour and bulk.

Still, Providence may use these as a check to the over-activity of the age. Man is surrounded by many temptations, needful in giving him opportunity, with the light of his judgment, to resist and overcome them; as, by resisting evils, he is made stronger in virtue, and without self-combat we cannot overcome. Self-government or self-control are man's chief attainments in earth-life. Not as in stoical contempt of our lower faculties with their natural desires and pleasures, but in a noble *use* of each faculty as a basis or root of a higher growth. Our affections or passions must all be subdued and made servants to our higher nature. But if given way to, and allowed to master us, we are the bond-slaves, and they, the unreasoning savage despots, without judgment or mercy.

We feel, on calm reflection of this elevation of our moral qualities—what our religion expresses so graphically in answer to the young man's inquiry, "What shall I do to inherit life eternal?"—that the whole is comprised into loving God, the supreme good, with the whole spirit, soul, and body, and to evidence that love of God by loving our neighbour as ourselves.

"He that loveth not his brother whom he hath seen, how can he love God whom he hath not seen?"

Health, longevity, and all that is valuable on earth or in heaven may be summed up in "life eternal." For what is life eternal but the perpetuation of this life, the continuation of what we have chosen as our life on earth! Death cannot change us, but will give us a wider scope to follow out our chosen pursuits begun on earth. Our loves, our affections, will still be in our hearts—our souls—when the body crumbles into dust and the spirit returns to God.

Man, created in the image and likeness of God, is ever impelled to strive after and return to the Source of his being, that he may become more and more like his divine origin—restored in himself, perfect even as his Father in heaven is perfect. How far short all rules and precepts derived from so-called scientific knowledge are, compared with those pithy teachings in our Scriptures, sufficient evidence of their divine origin, without ransacking all the records of antiquity. Truth must carry in itself its own confirmation to the reasoning powers, of its divine source, by its applicability to our human requirements.

"The words which I speak unto ye, they are spirit and they are life."

Long life, unless in the enjoyment of happiness—PEACE—would ultimately become a condition of torture and misery.

Happiness depends upon usefulness, involving a more or less active life, and without which no condition is long tolerable. Evidence of this may be found in the suicide who seeks in vain to fly from his daily burden of *ennui*. Also, see the numerous frivolous

amusements which so many of the idlers of life pursue, that they may *get through* their time, as if they had more time than they had any use for. Time hangs heavy on their hands *now*—of what use can it be, in the eyes of such, in earth or heaven? They are not yet alive to the meaning of their life *here*—how can we hope to awaken them to a sense of life hereafter?

Rest and peace have no meaning to such as have not laboured and striven after some good purpose.

Rest and peace are the natural result and reward of labour and noble strife.

Everything in earth and in heaven, embued with life, exhibits some action with a purpose or use. "The sleep of the labouring man is sweet," just *because* of his labour. The self-indulgent idler cannot sleep for want of the labour which should precede it and attain it.

"Come all ye who are *weary* and are heavy laden, and I will give you *rest*."

"No *cross*, no *crown*."

"There remaineth a *rest*" for those who *strive* after good.

All through life we continually see the unvarying alternations of light and shade, heat and cold, work and rest, bright activity and quiet contemplation, evidencing a natural condition of what constitutes our life—the universal life.

More, we may see around us a yet more strange result of this condition, this universal activity.

Everything that is embued with life—organic life—must continue to grow on into higher conditions, or it

loses its life, and falls back into lower—say inorganic life—or it may be taken possession of by its more active neighbours, and lost to its own individuality, though enriching its new possessor: as in the parable of the talents, he who neglected to use his capital was deprived of it, as unworthy of it. The most diligent, being most worthy of increased stewardship, is promoted to greater responsibilities. To the idler in life all this is meaningless: he has not yet tasted the true pleasures of life, does not yet know the sweetness of *earned* rest, of *earned* food. There are still many things—the best things—which cannot be bought for money, but which can be earned by honest labour—cannot be had without labour, in one form or another.

Perhaps the most hopeful signs of these present times are the growing desires of the educated classes to be enrolled among the labourers of the world.

That which has so long been the badge of servitude—of slavery—is now rising to be the highest honour for humanity to attain.

That which was, by its inequality and class distinctive drudgery, a very curse to the race, has now been lifted up and worshipped in the form of Him who became a servant to all.

"He that would be greatest among you, let him be as your servant." It is this divine Christ-life growing and multiplying through the ages, which accepts and rejoices, and is thankful for such continuous service—a *service of love* which knows no weariness, which seeks no reward but that which comes with it, which fills the heart with gladness, and the very bones with health.

All life flows from within outwards. This is a truth which is lost sight of in our anxiety and love of appearances. We forget that "it is the spirit which giveth life;" the letter, the form, availeth nothing where the spirit is wanting. Where there is life, it is seen or manifested by its activity. It shows itself by outward signs, where conditions are not dead-set against its powers of expression. You cannot kill life, but you can prevent it from manifesting its presence, according to its individual nature; and thus being rejected and despised, it passes away from you, and enters newer and more healthful conditions.

Forgetting this truth, we seek to restrain and modify life to our desires; we waste it as our own, we hoard it as our own, and wasting or hoarding, alike we lose it. Life, to be preserved, must be *used.* This is the only true usury—"Occupy till I come." No retiring from active usefulness till the very end! No years of idle leisure, to be consumed in fretful impatience of trifles which have assumed an importance, unheard of in the happy labours of our working time! Not that a man's life need be one long routine of work and drudgery. Need *any* part of a man's life be after this pattern? Yet no man, who does not live a wholly selfish life, need ever be without congenial and healthful labour—seasonable to his years and experience, either for this life or the next. "Better to wear out than to rust out." And yet, with moderate care, this proverb may read with a difference. Our bodies being organic and not inorganic, we increase our strength by wearing or using—we decrease and ultimately lose

our strength by want of use or *rusting*. And here we may observe, for the benefit of many hard working labourers of a kind, how that *all* the body must be used in moderation, or health is soon lost, and *disease* sets in.

Brain workers draw upon the general capital of life, and deprive the other members of this "corporate society" of their share. The natural result of this monopoly is seen in the various discomforts or diseases common to this class: dyspepsia, insomnia, loss of general power, inertia, languor, and a want of appetite for all natural refreshment of body or mind.

Then, again, in an opposite class, we see muscular activity developed and abused to the detriment of the higher nature. We have already seen that the sleep of the labouring man is sweet, but the sleep of the *over-tasked* labourer is the wages of oppression. All the vitality which should go to the quickening of thought, and elevating of his lower life, has been used up by the demands of mind and limb, until the animal holds the sway over the man, and may—alas! too often does—dethrone and kill his higher life.

No one part of our nature, mental or physical, may be abused or disused with impunity. We may not know the full extent of our loss, as we may not know the full extent of our capacities for power or enjoyment; but we may, each one of us, realise in a measure how much more healthful and happy we may be by a fuller use of our faculties and functions, and by a wise restraint on such faculties and functions, as we are consciously *over*-using.

We may illustrate this by alluding to the perfection of form, as idealised or realised by some eminent sculptors, who have not aimed at any one point of excellence, but have excelled most where they have expressed their conception of man, as a harmonious concord of uses, while, in looking upon their productions, overlooking details of exquisite proportion, we are lost in admiration at the oneness of their idea, simulating the divine, and only lacking one thing—life—to make it perfection.

Now, what these artists have striven to give us in form, in letter, we must strive—each of us—to attain in spirit. For *we* have that one thing to start with, which these inorganic harmonies lack—*life*—organic life—spiritual life, by which we may readjust our lines and curves, outlive our disharmonies, restrain our growing excrescences, and, in a word, remodel ourselves after a more perfect manner, even after our Grand Example of divine humanity, "the man *Christ Jesus.*"

The time is fast passing away when fractional men are held up to our admiration and example. It is the divine wholeness of His humanity which draws all men to love and follow Him who was neither bookworm nor ignorant rustic; neither athlete nor æsthete; neither voluptuary nor ascetic; who was a conservative of the highest type, for He maintained the law in its fullest entirety; yet a liberal of the liberals, for He opened His arms—aye, and His Father's arms—to all humanity; an aristocrat of the first water, for He called all His followers to be kings and queens; yet

a socialist of the broadest ideas, since he welcomed, nay preferred, the outcast and the despised pariah to the respectable and self-righteous pharisee.

"Behold, the publicans and harlots enter the kingdom before you."

Health and long life, with a cheerful old age, are not simply the results of arbitrary or accidental circumstances, but the fruits or rewards of obedience to the inflexible laws of life—man's first lessons in life, as an intelligent being, which quality of intelligence (the faculty of choosing between) constitute him—man. Man is to learn and obey these laws, in the keeping of which he has his great reward.

Health and longevity are not always even the consequences of inheriting a sound constitution, although the possession of such is of great value when rightly used; but even this too many recklessly waste, or misapply the gift bequeathed to them, so that, as we often see, the race is not always to the swift, nor the battle to the strong. We are under physical, mental, and moral laws, all of which are essential to our happiness, although we may often see rude physical or animal health possessed by moral debasement.

Every law of man's nature has in it the elements of self-action or retributive results, in reward or punishment, of joy or sorrow.

Violation of any one of God's laws—laws stamped on our substance or spirit—awakens a voice of commendation or regret, which, if listened to, teaches us in the language of sensation or conscience, condemning or approving; for the voice of God leaves none of us

without a witness, as Paul teaches in the 2nd chapter of the Epistle to the Romans.

CHAPTER IV.

ESSENTIALS TO LONGEVITY.

PURE AIR may be termed the first element of life —the breath of life. We first begin to live our individual life when we breathe, and in ceasing to breathe we die.

The life principle is very accommodating, as we may see mankind enjoying robust health in many extreme climates of heat and cold. But the temperate regions of our earth seem most conducive to health and comfort, while elevated situations are better than valleys. Yet Nature has an abundant provision for purifying and renewing her less favoured abodes. The constant activity of everything organic and inorganic, consciously or unconsciously, ministers to the comfort and development of all. Storms and tempests clear the air of accumulated and stagnant elements of disease; rain and wind, in gentler forms, are continually changing and recreating fresh conditions for life to put forth new beauty and gladness.

The earth rejoices after the summer rain or the winter snow, refreshed and strengthened by a new gift of vitality.

Second only to purity of air, are our habits in regard to Food and Drink. The very enjoyment which we

have, and ought to have, in our food, renders it an imperative duty to control our appetites, since the abuse of this enjoyment is the unseen cause of perhaps three-fourths of the diseases which afflict our race.

Man alone has the power, by his intelligence, to bring every product of the earth and sea under contribution to his appetite. Every creature under man is restrained by the difficulty of procuring enough of food; arduous labours and exertions prevent them eating to excess, which almost all animals are apt to do with unlimited supplies.

We may see that a moderate amount of useful labour, or exercise of our physical powers, furnishes us with the best and safest zest or tonic for the enjoyment of our food.

The amount of our food, indeed, should depend on our need of it, to renew what has been used up in our tissues by action. The appetite, when not morbid from undue indulgence, is a safe guide. To eat when not hungry can but result in discomfort, or even disease. To miss a meal, or a day's meals, seldom does much harm; to eat a meal which is not called for, is certain to injure directly or indirectly.

Fasting was the natural resort in earlier days after a period of feasting. Even yet, when discriminately used, it is a safe alternative; but as there is no such repulsive exhibitions of gluttony as were seen in days past, so is there no call for such protracted and excessive fasting as even the church at one time enjoined and practised amongst all nations and religions.

Still, while moderation is becoming more and more the rule of life in this as in all things, an occasional fast may be beneficial to most individuals who have transgressed the bounds of their necessities.

We have seen that life manifests itself from within to without; therefore, in our keeping the outlets and the exterior—the *skin* of our bodies—in good order, by cleanliness, exercise, etc., we ensure an open door for the removal of our used-up materials in the form of exhalations, or emanations; while we also find that all free surfaces of the lungs, liver, bowels, kidneys, etc., are assisted by action, so that the whole economy is maintained in health and strength, and renewed by good digestion and sound sleep.

But let these open doors be sealed up by want of exercise, and an over-pressure is at once applied to the interior organs, which, having their own work to do, are hurried into extra activity (inflammation), or are worn out (paralysis), or combine to do the best they can for the time, in chronic discomfort. Mankind have, in all ages, been seeking for health and long life without submitting to and obeying the laws which alone ensure his desires.

The great aim with most of our race has been to take the largest amount of enjoyment out of life without paying the legitimate price; but self-denial and subjugation of our lower nature to our higher is essential as a means of our elevation; we rise with each occasion of self-denial to greater power over our animal natures, rising higher and higher as we develop the spiritual—the angelic, the divine. For it is only as

we subdue our lower nature that we can rise with our higher, until we sit on the throne of our manhood, and judge with clear eyes our inmost thoughts. Until then, we cannot judge even ourselves, being blinded by habit, prejudice, and animal desires. Only the *pure* in heart can see what is *good*, and in proportion to the purity of our desires, shall we be able to see that which is beyond and above us. "The pure in heart shall see God."

CHAPTER V.

HINDRANCES TO LONGEVITY.

WE have already seen the great necessity of "moderation in all things," if we would maintain health to a happy old age. Our capital of life-power may be used, abused, or left unused, but the natural result is certain in either case.

Useful labour is necessary to all as the natural outlet of our vitality, without which outlet, we accumulate our physical power to our own danger—a plethora of physical wealth being as hurtful as unnatural.

Life must find a useful and wholesome outlet, or it makes a way for itself—often injurious both to society and the individual.

The passions of the "masses" are most dangerous, when pent up to fever heat, when delirium sets in, and self-control is lost, in the wild excitement of unbridled license.

Healthful diversity of occupations, in which the whole man is exercised, prevents all danger of such crisis times; while the social interchanges of our leisure hours may be utilised as true diversions from the more serious work of life.

For very many, the labour of supporting life and life's burdens is unnecessarily heavy; for very many it may be lightened, if they would consider what are the essentials of *comfort* apart from prejudice or appearance. In these times, life may be made vastly simpler and capable of greater enjoyment, if we will but choose what is needful, and not what is usual.

Now, as to essentials: first, we have already seen that we must have pure air as the basis; then warmth by sufficient clothing; pure but simple food; wholesome dwellings and surroundings; moderate labour; sound sleep.

But to attain even these, we must exercise our intelligence in choosing our dwellings, our food, our labour, and our companions. We must develop our knowledge of what *is* wholesome; our firmness to resist the temptations of what appears pleasant to the senses, untrained as these are to their higher powers; and discovering what rule of life is the best, we shall habituate ourselves to it till it becomes our greatest pleasure. But the greatest hindrance to longevity must ever be in a life of selfishness, which indeed is scarcely to be considered *as* life.

If we look at Nature in every detail of manifested life, we see that activity, with some use or purpose, is apparent throughout the universe. This principle or

which pulls him up, and forces him to rest, broken in wind and weary in limb.

The terrible pictures of our city life, with its gin-palaces side by side with our churches and mission chapels—the details of our police reports—the heart-wearing social crimes—the domestic tragedies of which we all bear the burden, more or less, as we share in the joys and sorrows of all society, whether we will or not: how strange that with these before us we cannot unite more heartily, more effectually, to put from our midst this crying evil, this blot on our humanity!

The felt need for some stimulating drink is the evil to be combated. The nervous system, the basis of our physical body, is weak, or tired, or worn, and must be whipped up or spurred on to renewed activity; for without this nervous life, all life-activities languish, and the whole man is dull and inert.

But whipping, or spurring, only hastens the destruction of the whole animal fabric; and while temporary relief or enjoyment is speedy, though transient, every indulgence in the mistaken remedy is but a false ally—a traitor in the camp.

Nerve-building food, nerve-resting sleep, nerve-soothing conditions generally, are what are wanting, especially in this age of hurry and scramble, and haste to be beyond our neighbours in everything but goodness.

Our FOOD is too *concentrated*—indeed, much of it is as injurious to our nervous systems as the moderate drinker's "glass." Our reformers on this question would do well to study the subject of diet, since to

remove the craving of thirst, and this can only be done by judicious and wholesome diet, is to cut at the root of this crying sin of our day.

The use of animal flesh, as an article of daily food, is as injurious as it is unnecessary and wasteful. Whatever may be, have been, or, in some instances, may yet be, the necessities for the use of flesh meat, where sufficient supplies of grain, fruit, and vegetables were or are impracticable, we have now in our favoured times, with our modern conveniences and quick conveyance of country produce, not the slightest excuse for continuing what must be considered a rude and barbarous custom, the relic of times which are best left in the obscurity of forgetfulness. With our greater advantages we need not continue the crude customs of the past, but aim at a purer life, physical as well as moral.

On this broad subject, a subject of growing interest, not only from its physiological point of view, but from the more clamant claims of economy (of self-preservation, indeed, as a country, seeing that this country can be made self-sustaining only as an agricultural, but never as a pastoral region), our friends the vegetarians have already shown the possibility, the desirability, and the manifold advantages of their manner of life.

Certainly, they claim to make life sweeter, more wholesome, more humane, and easier for all concerned, either in the production of food or the preparation of it for the table. But purely as a curative agent, the subject of diet demands the experimental attention of all interested in their own health or that of society.

All stimulating foods, all highly concentrated foods, are unnatural and unwholesome. The apparent results of renewed strength and vigour are not always real or lasting: this is seen by the heightened pulse, high colour, and feverish excitement after a meal of flesh or fowl, which must be renewed at short intervals to maintain activity. But the vegetarian can go longer on his simpler and less stimulating diet, and may even fast with less inconvenience or discomfort, since the *staying* powers of his food are greater in proportion to its purity.

Again, in all cases where febrile symptoms are to be feared, the less stimulating the diet, the easier the recovery; the digestive system especially requires *rest*, in order to recover tone for future use. Urging on the the debilitated powers but increases the burden, and impels the disease further into the citadel of life. It is incredible to those who have made this a special study, *how very little food* is really necessary to maintain life; and how this little may be received with benefit, when a larger quantity, or a more condensed quality would do increased injury. What is not *made use of* is simply so much extra waste matter, which the hard-worked body has to *get rid of*. This means more work for the heart and lungs, which may already be weakened by over-strain, and require as much rest as is possible under the circumstances of life.

The grand secret of the wonderful recoveries by the "grape-cure," the "Koumeiss cure," and such like natural agencies, lies in the fact that the patient is confined to the one element of food, which does not tempt him to over-eat; also, that he is otherwise

placed in the most suitable natural conditions for rest to his whole system—that his nervous structure is not strained by a constant succession of meals, while it is being built up—renewed—with the purest materials; and if he has sufficient stamina—vitality—left, he may rise refreshed and rehabilitated in every tissue for a new lease of life.

But if these simple means can restore health, surely a less clumsy and elaborate system of diet may suffice to maintain our bodies in useful activity.

Briefly, grains or farinaceous foods—pulse or the pea and bean tribe—together with a due proportion of fruits and vegetables, are proved amply sufficient for all our wants.

To these may be added the natural products of the dairy, which, in our colder climates, are safe and agreeable to most individuals, but to be sparingly used by all whose digestive organs are enfeebled.

To such, the use of the simpler classes of fish may be more advantageous, although the usual mistakes in cooking fish render this frequently more hurtful than wholesome, or nutritious. Salmon, herring, and the smaller white fish, as haddock, whiting (and cod, if not too large and coarse), are perhaps the least liable to disadvantageous qualities. The salmon, which is so extensively imported in tins from America, I find more easily digested by delicate patients, than the fresh fish caught in our rivers. This may be from the very thorough cooking of the tinned fish, and perhaps from the quality of the fish, there being more oil perceptibly in the American salmon; and this oil, I

consider, assists in digestion. The latter fact we may also observe with white fish, as we instinctively add oil or butter to these when deficient in themselves. Baked or fried fish, steamed or roasted, with the addition of a little milk or oil, are much more easily digested, and much more nutritious, than when boiled in a quantity of water, which is thrown out—*with the substance of the fish.* (The finer juices and flavours of the fish are thus lost, and the remainder left stringy and tough—showing how much of the substance has been abstracted.) But the same rule holds good with all food. This is why soup is so nutritious, when formed even of simple grains and vegetables. The fact that soup, substantial, savoury, and sufficient for hard-working men, can be made without the addition of any flesh-meat—in some cases without butter or oil—arises from the whole ingredients being slowly blended into one harmonious compound; and the goodness of this excellent dish is increased in proportion to the variety and diversity of the elements which go to its making.

The whole science of cookery might be wisely revised, as indeed it is being done by our vegetarian friends, who find it of benefit to take some trouble to *keep themselves well,* having, many of them, learned by sharp experience, how troublesome is the process of *making well.* "Prevention is better than cure."

The use of whole wheaten bread is another preventive measure, which is beginning to be adopted by the few who have experienced its goodness as a true staff of life.

Our food, I have already said, is too concentrated, and, in the matter of white bread, too drying, as an article of daily use. Whole wheaten flour is not only rich in gluten and phosphates—both necessary elements in the building up of our bodies—but its very roughness, or comparative *roughness,* is an essential of wholesomeness, preventing the formation of dry concreted substances in the alimentary canal, preventing, in a word, CONSTIPATION, with all its legion of evils.

Children brought up on white bread, *i.e.*, bread deprived of its gluten and phosphates, are of a less hardy build, and more liable to digestive disorders.

It is to be regretted that custom has already mistaught the working classes on this subject, to the evident deterioration of themselves and their children.

The use of whole wheat bread, with the plentiful supply of cheap and delicious fruits, now to be had in our large cities, precludes the necessity of either flesh-meat, or—in the case of children—of so much dairy produce. The adulteration of butter and cheese, especially in the inferior qualities, make it a question of importance whether they cannot be dispensed with altogether, when they cannot be procured pure, and at a reasonable cost.

The use of vegetable oils in our cookery inaugurates a new chapter in the science of food.

All oils—mineral, vegetable, or animal—are essentially the same in substance, requiring to be separated from the individual accompaniments, and in proportion to their purity from all foreign or alien qualities, are a necessary element of our food.

The use of olive oil has long been recognised for its bland and easily digested properties; but its price has kept it for the richer classes, or the more fastidious. Many other vegetable oils are now, however, in use, and within reach of those most in need of them. Cotton-seed oil is largely used in every variety of cooking and baking—and when procurable in a moderate degree of purity, it is less odorous than even the olive. Used in judicious proportion, it is much more easily digested than butter, or any animal fatty matter, and may render pastry as safe for the dyspeptic as the usual manufacture is unwholesome for all. We find also that this oil is a better lubricator for external purposes, being less viscid than much of the so-called olive oil at a higher price. The fact that cotton-seed oil—refined—can now be had from retailers at 3s. a gallon, and that this oil is suitable for every external and internal purpose of the body's requirements, that it is as nearly as possible *tasteless*, and that it will keep sweet for years in any climate, should make us consider how much less important is the question of Butter *versus* Butterine to the general public.

The use of oil is very little understood. It is a necessity of our physical nature. The mechanism of our various wonderful organs require this element as a lubricator, while furnishing a proportion of the fuel to keep up the fire of life.

In all products of the vegetable kingdom, oil is present in more or less proportion; and by the general use of a diet of this class we consume, as a rule, suffi-

cient for our purposes, and in the most sublimated forms or qualities. But where the digestive system is enfeebled, or especially where the liver has been injured, and is diseased in any way, the necessity for an *outward* application of oil is felt to be helpful and nutritious.

This is most effectually applied over the whole body, but especially over the weak organs—wherever the dry, shrunken appearance indicates their need of this help, and should always be preceded by washing of the parts, and followed by warm rubbing with the hands till every particle of the oil is absorbed. No oil should be left on the surface: it is better to rub in oil in small quantities, and frequently, in the case of all weak digestions, rather than to give rich food. The very process of brisk, thorough rubbing will promote circulation, and stimulate the natural secretions into healthy activity.

I cannot leave this subject without alluding, though briefly, to the very great injury done by the over-use —among the middle and higher classes—of SOAP as an article of daily use. We seem to grow from one extreme of habits to another, and suffer accordingly from overwant of discrimination and moderation. My practice as an hydropathist leads me very much among a class who are suffering, I may say, from *too much soap.* They lather, and scrub, and rub at their much-suffering bodies till they denude themselves of every particle of the oil which is so essential to their life. Their nervous energies are stimulated to the utmost by their very earnestness to be thoroughly *clean*, till they forget

that in things physical, as in things spiritual, we may be over-righteous, and wash away the *very ground we stand upon.* A general ignorance of the physiology of our bodily structures, even among the *educated* classes, is at the basis of this error. There are few who will trouble themselves to think for themselves, but are content to pay others to do this for them. Hence, I find my patients often too obedient to literal prescriptions; but few will be at the pains to use their own powers of observation and consideration, and think for themselves.

This, I believe, is the chief hindrance in all true reforms of life, whether in the life of morals or in the physical. It is so much less bother to swallow an occasional pill or a powder, or apply a leech or a blister, all under the recognised authority of some one who is paid to look after these things, just as it is a less troublesome policy to keep up our police, prisons and poorhouses, than each to do our share of helping our neighbour with sympathy and heart-kindness—to do justly and love mercy. Yet in both systems, prevention is seen to be better than cure; timely consideration of ways and means better than the experience of sadly deficient substitutes for the natural outlets of the life of our teeming population.

The amount of *power*, life, running to waste, or drawn into improper channels, is to all serious men an appalling fact. Land, barren, or left half-cultivated by the hundreds of acres on every hand, and human labour standing waiting to be hired for the price of bread! Our hearts ache to see these anomalies of our Christian

civilisation, in an age when humanitarianism is in every man's mouth, and his brother stands begging for work to do, that he may have bread to give to his children.

A great proportion of the desire among the poorer classes for alcoholic stimulants, arises from the insufficient quality of food and clothing. The poor often drink to forget or obliterate for a time the thought of their misery. The pittance in their hand which will give them temporary oblivion, even an hour's happiness of a kind, will do so little to bring them or their families food and clothing, that they spend that little on what brings them their short-lived pleasure, even though they know the evils that must follow.

A more general use of fruit and vegetables, together with a generous diet of the wholesome grains and pulse, of which the variety in our markets is yearly increasing, is the best and surest preventive of the thirst for intoxicants, or narcotics, for which the present habits of a flesh-diet prepare as by a natural course of action. Where this diet becomes usual or general among the upper and middle classes, the working classes will soon follow their example, and thus improve the quality of the race.

The enormous imports of cheap fruits, with the moderate price of breadstuffs, is the best preventive measure against the thirst for alcoholic beverages. But the reformer who would benefit his fellows must show the example in living a pure, physical life, thus evidencing to all the advantages which all may possess and enjoy. The physical must be the basis as

well as manifestation of that purity which we aim at, morally and spiritually. A pure mind is best lodged in a pure body.

But having dwelt perhaps too long upon the physical hindrances to longevity, as shown by improper food and unwholesome beverages, we may glance for a moment at some of the more indirect hindrances.

Undue anxiety about our temporal concerns, undue anxiety even about our health, wears out life faster than hard physical labour. Over-work of any separate physical function, whether in brain-work, inducing want of sleep, and thus depriving the nervous system of its recuperative rest; or over-work of the digestive system, by long fasts and hasty meals; or over-work of the muscular system, involving a corresponding lethargy, by abstraction of all vitality from the head to the limbs —all these, being *unequal* labour, injure the body as a whole, by disturbing unduly the balance of power, or by concentrating that power in any one function, which ought to be shared in common, by all the various functions, in due proportion. Man is social as well as individual in his instincts. He must, therefore, cultivate and exercise his social qualities, or suffer in his social nature. He is not constituted to live alone—nor even in isolated families. In extreme cases, he may be compelled to isolation for a time; but he suffers in himself and in the race in proportion to the value of his helpfulness. Life consists of a mutual giving and receiving of each from the other of whatever good thing, quality, or power of usefulness we may each individually possess.

We must ever remember our need of union, co-operation, and mutual forbearance—not, indeed, that morbid and quiet feeling, that retiring into self, that false peace, that false union which nothing disturbs, because all is indifference and apathy; but let us breathe that true Christian love which seeks its neighbour's good, and that true charity which leads us to sacrifice self for our neighbour's sake. Such a life brings its own reward, giving us larger, more varied interests, filling our days with purer pleasures, even though they may be alternated by keener pain; for he who enjoys most, is most capable of suffering. Yet he who has most hold on the affections, the interests of others, has stronger ties to life; he whose life is narrow and self-centred has but a slender hold, and is easily shaken off by the first violent gale, which gives to another but one more proof of his value to friends and society, and their need of him. "No one to live for, no one to care if I am away to-morrow!" This is the language of one who feels how little he has done for his fellows.

With maturity comes the natural desire for companionship, nearer and dearer than mere friendship can give.

Man, formed by his Creator to manifest forth Himself in an ever-increasing degree of similitude or likeness, has implanted in the very groundwork of his nature the hidden desire to perpetuate himself in new forms, and with unconscious instincts, to fulfil his Maker's purpose, and replenish the earth with beings like himself. This instinct he possesses in common

with every organic living creature in the universe; every plant, from the humblest moss to the lofty palm—every life-form pulsating with its portion of the Divine energy is impelled, by its very condition of life, to repeat itself, after its kind, by one unvarying yet harmonious law.

But man alone has reason to guide him in choosing his helpmate and life-companion, and when he is led by this guide, he may hope for satisfaction, in continuity of mutual affection and sympathy. But, where the impulse of fancy or superficial liking of some admired quality, or, worse still, the mere animal desire of possession, has ruled the choice, the probable happiness is short-lived or half-hearted.

To attain the blessings of a happy home, where the soul may find her affections rooted in the firm ground of mutual respect and esteem, each for the other's best qualities, with a like mutual desire for the happiness and improvement of the other, demands a wise and thoughtful consideration, both of our own needs in a partner, and our power to help each other. With a mutual affection, strength is freely given to both for life's purposes, each sparing the other where needful, and each forbearing with the other's weaknesses, not provoking the evil, but encouraging every good feeling into strength and perfection. God has blessed man with this institution of marriage, in order to place him in the best sphere for self-development, by giving him the most frequent occasion for the denial of his lower nature: drawing him out of himself, that he may worship the good in another, and, with that other, unite

in serving Him, by serving each other's highest interests.

As a means of longevity and enjoyment of old age, we need only allude to the pleasures derived to parents by their children and children's children. Few can witness unmoved, the sight of such a picture —childhood, maturity, and age, uniting in one rich, full-toned harmony, reflecting each on the other an added grace, from the combined affections drawn out in the various chords of family love. The old live again in their children, but doubly so in their children's children. It may be that life has lost for them some of its anxiety, and their affections, being so far loosened from the pressing calls of activity, are more in sympathy with the young, still free from care and solicitude for the future.

The attentive ministrations of those whom we have brought up around us, combine with their affection to keep in the lamp of life in the aged; to feel that we are still beloved, even though no longer able to *do* much even for ourselves, prevents the spirit from fretting over our uselessness, while rejoicing in the love that finds an outlet in filial tenderness. For many, this period of life is fuller and richer in happiness than even their childhood: a time of quiet restfulness, a waiting-time for the Harvest, when the ripe grain shall be cut down with rejoicing, and carried into the King's storehouse—not as in childish petulance and impatience of control, but in childlike trust in the Unseen Hand that has led us all the way through the dangers and difficulties of our pilgrimage, we rest in

this Golden Land of Beulah, with the glory of the heavenly gates growing more and more open to our eyes, and with our hearts full of a quiet assurance of the coming of the Lord to take us to the home He has "prepared" for us in His Father's kingdom.

Thus we have seen how a solitary life—a life maintained apart from its family and social uses, is inimical to longevity, by leaving many of the legitimate and healthful instincts unsatisfied.

Nay, more; since, where these instincts are strong and active—that is, where the affectional nature is quick with the life-forces which seek a natural outlet, and yet are repressed or debarred from their legitimate sphere of *use*—then in, alas! too many instances, this strong, rich life is turned *downwards*, perverted to the owner's own ruin and debasement.

There is no safety for the soul in enforced or unnecessary celibacy, or isolation from any of the natural pleasures of his life. The spirit, in proportion to his POWER, or life-force, seeks a means of manifesting his individuality. In some, this life-force may be concentrated; in others, more diffused. In one, the natural bent or inclination may be, from inheritance or circumstances, in an upward direction, and thus the intellectual and spiritual, or coronal regions of the brain are developed, at the expense of the lower or animal nature; or the natural bent may be downwards, and in this case the lower nature is fostered and stimulated by the vitality which should be directed to the higher functions; or, indeed, any portion of this trinity in unity—this possibility of Divine manifestation—may

be hindered, or hampered, or crippled in its intentions, and the poor, blurred image of divinity, the misshapen product of humanity, is the disheartening result.

Man, we must ever remember, is a triune being, whose spirit (the Divine power of a higher humanity), whose soul (that bundle of affections so often misunderstood or despised by those who dread their abuse), and whose mind (or intelligence or understanding, that which chooses what *seems* best), are each all manifested in, and ARE the hidden and immediate cause of the body's various peculiarities and idiosyncrasies. "It is the spirit which giveth life, the letter (the body or form) profiteth nothing"—is of no inherent value apart from the spirit. See when the spirit, with its affections and intelligence, has taken its final leave of its earth-home, how speedily that home becomes a scene of desolation and waste—a very nest of corruption and loathsomeness, to be buried out of our sight, even though it may have been the form of our nearest and dearest.

It is a lamentable mistake with many of our most earnest social reformers to forget or ignore the instincts of humanity—those instincts, which we share with every created living being, and which have been implanted in the very ground-work of our nature by an All-wise Creator, who makes nothing and does nothing without a purpose of beneficent USE.

The partial neglect on the part of man hitherto to cultivate the soil, and so provide food for himself and those dependent upon him, has limited the comfort and happiness of society to a select few, who arrogate

to themselves the pleasures of possession. But it is to man, AS A RACE, that the earth has been given to possess, for USE—to find on it all that is necessary to his growing perceptions of the beautiful and the good—to enjoy it as his own, by his own labour upon it.

This question of labour is now seen to be a necessity for man—a blessing, and no curse; but that it may be so, each must do his or her part, and find the blessing for themselves, *in* their work. As yet, the many labour for the few, and the few deny themselves the natural blessings, which are the legitimate reward of moderate labour. The earth is amply sufficient in extent and natural resources to nourish a very much larger population than is now starving or half-starving upon it. But much requires to be done by the leaders of men, who will find their true work in projecting colonies of industry in the most suitable regions, and where their labour will be rewarded by a bounteous harvest of Nature's best gifts—grains for bread to strengthen, and fruits to rejoice the hearts of her followers.

We have already shown that the purest and most wholesome food must be obtained direct from the lap of Mother Earth; but where diligently sought for, and carefully, reverently followed, we find no niggardly return for our pains. The science of agriculture begins to assume an importance, in the eyes of all real political economists, which it never before held in our latter-day civilisation, although the clamant arguments in favour of stock-farms and sheep-runs still blind many

to the growing necessity of a new development and progress in the art of feeding a great nation.

Now, in this natural outlet for human strength, lies one-half of the cure of the great social disease of our day. Strength it is, of the best and most valuable, which is being *wasted*—utterly wasted, day by day—in our large cities and crowded communities of ignorance, and poverty, and misled passions. The destruction of the poor is their poverty, to-day, as it has ever been in times past; and the work of reformers must be to remove the causes which lead to poverty.

Education of the children is now thought to be the true panacea for all the present evils; but this is but a plausible help, if that education does not include a true *leading out* from the present conditions of ignorance, in which the people are blinded to their own true interests as men and citizens. Education must include knowledge of the laws of physical life as a basis of instruction. More, the bodies of the children must be educated as well as the minds, not only by precept, but by habit and example. And only now are we beginning to see that, with a large majority of our poor children—many of them worse than fatherless and motherless—we must feed their bodies as well as their minds, if we would hope for any adequate return for the enormous outlay in our educational machinery. Starving bodies, or half-starving bodies, are ill-suited to be the instruments of instructed minds. But, again, education of humanity must be threefold, or our purpose is doubly perverted, and we shall find the latter end of the nation to be worse than the first.

"Knowledge is power;" and power is a dangerous gift in the hands of the perverted or selfish. Education must therefore include the affections, *leading* these *out* of self, and attracting them by the power of kindness or LOVE to some one other than self. Reverence for what is good, for what is true in parent, teacher, or friend—reverence for the beautiful in Nature, as the external expression of the Divine—tenderness to all that is weak and helpless, such as insect, bird, beast, or child—reverence for themselves, or self-respect, in modesty of behaviour and speech—reverence for each other, or courtesy, by gentleness and politeness to their companions and neighbours. Here ends the first lesson.

All this has been inculcated by our world's teachers again and again, but principles are often lost sight of in the haste of practical life. Only in school-life can we hope for much reform among the classes referred to, since the surroundings of their home-life (?) are all against our best efforts for good.

We cannot expect to undo all this great evil in one generation, but much good may be done for the future, even by partial help out of the mire, in which these poor children are held fast, by association and circumstances. Industrial classes, in connection with the lessons, will not only educate the body into practical usefulness, but occupy and strengthen the mind; since it has been found that the mind is maintained and developed in its perceptions and powers in proportion as these powers are exercised through the senses, and put into every-day practice. Many of the mental or intel-

lectual tasks, given to our boys and girls, are mere abstractions to the opening mind. We seek too generally, to educate the mind apart from the body, and fail from want of sufficient basis to work upon. For we must ever remember that the body is the basis or ground from which the mind is made manifest, or evidenced, or expressed; and only in proportion to the harmony of mind and body can the lessons we inculcate be made use of. We eat our food, but if our digestive organs are, in any part of them, impaired or defective, we make little use of what may be otherwise good. In like manner, our minds must be in a fit state to seize and appropriate, to the mind's use, the mental food which we consume; otherwise, it is so much unassimilated matter, which must be forgotten (cast out), or it becomes a drag on our mental powers of life.

Daily habits of more or less firmly administered discipline—habits of cleanliness, order, honesty, and kindness to all about them, with a few leading principles of life, as before stated, are more valuable to the rising generation of the elementary classes of society, than much of the verbiage and inherent smatterings of science and theology, which it is attempted to cram into unprepared vessels.

LABOUR—healthful, self-respectful labour—I have shown is the one half of the remedy for our great social evil; the other lies in a wise provision for the AMUSEMENT of the PEOPLE. Give their affections and their intellects a natural and wholesome outlet, and the pent-up passions cease to annoy us by unhealthful

means. Public play-grounds, under kindly but firm supervision, for the children; gymnasiums, cricket-fields, swimming ponds, industrial museums, picture galleries, etc., for the growing and grown-up youth; work in moderation for all and leisure for all; more consideration for the poor, and less class legislation for the benefit of the rich—all will tend to the prevention of the *causes* of this, chiefly *physical*, sin.

It is an awful responsibility which our social reformers assume, where they do not recognise the absolute necessity of making a *safe outlet* for the surplus strength of the nation: we insist on the fact that the affections are the very life and strength of a man, and when they are not used, or preserved for natural and sacred *use*, they become a scourge to himself and generations unborn.

A knowledge of his own nature, in rudimentary or elementary principles, wisely taught to each pupil, in language made suitable to his age and condition, would save many from these sins of ignorance, to which ignorance much of the present habits of vice may be attributed. For what is vice but weakness, the antithesis to virtue or strength! Strengthen the body with pure unstimulating food—nerve-building food—strengthen the mind by wholesome and simple instruction in the laws of life, and strengthen the affections *outwards*, by habits of kindly courtesy and regard or consideration for others, and you strengthen the whole man for use, with the enjoyment of all his natural desires IN use.

One word more on this subject. Much good, we

believe, might be accomplished by more frequent visits of the refined and intelligent of both sexes—in raising the tone of morality in our primary schools—or indeed, in our schools generally. The influence of the one sex over the other is ignored or feared, whereas, it is, and ought to be, a most powerful means of good. Many an ideal image has been formed from the sympathy shown by the "real lady," or the "real gentleman," scarcely conscious of the furtive but watchful glances of their youthful admirers, who will build up, from this glimpse of goodness—or what to them is perfection — a safeguard and guide through many a temptation. Sympathy between teacher and pupils will also help much to raise the moral standard in schools; but for this the class must not be too large for the instructor to know each pupil individually.

It is the massing together into large classes in school, in childhood, and in manufactories or workshops in adult age, which prevents all sympathy between teachers and employers on the one hand, and pupils and employés on the other. Sympathy must have a knowledge of the life, joys, and sorrows of each other, or it deteriorates into pity on the one side, and fear or indifference on the other. We must *know* those whom we love or respect. We cannot love a mere abstraction, or even an unknown benefactor, except in so far as we know him by his presence among us.

Daily knowledge of each other's goodness increases respect and affection, and binds us together in a unity of purpose for mutual benefit.

CHAPTER VI.

OLD AGE.

ALL life involves continual change. Nothing animate or inanimate remains; sensibly, or insensibly, all material forms assume new forms. Change by destruction and reconstruction, or transmutation, is the necessary condition of all things created.

Man himself begins with a minute form, or germ, which increases by growth, while continually throwing off the wasted or used material of his daily supplies, till he attain his full stature and strength for life's uses, his imperative duties. From day to day, the particles of his body are incessantly wasting and renewing, which may be seen to be the universal law of a physical necessity.

The *arrest* of this decay, or waste, in regular proportion to the new material added, is the latent cause of *disease.*

The retention of some one or other of the used-up particles—of the wasted, and therefore impure substances, which it is the function of the various excrecretory organs to eliminate from the body, is generally the origin of most diseases. This arises from our ignorantly, or wilfully, neglecting the warnings, which Nature is ever ready to give us, and gratifying our appetites or passions, while overtasking our digestive organs with work, before they are ready for it. The excretory organs, in turn, are hurried into extra or overtime labour; and, being unequal to their unremit-

ting task, draw upon the strongest among them to relieve the weaker. By and by, the HEART is impelled beyond its strength, and, urged on by unexpected pressure, hurries through with *its* added share of work, but not without open and rebellious complaints, as *it palpitates* in haste and unseemly disorder. Then the HEAD is made acquainted with these undue calls for service, and replies by telegraphing pains and penalties to all connected. All the various organs are in sympathy, and act and react on each other, the stronger suffering for the weaker, but unable to do their own work efficiently, while forced by this sympathy to help their neighbours. Thus an accumulation of waste material, more or less impure, or corrupt, or it may be even *putrescent*, in proportion to the corruptibility of the food which has been used, remains in the system, poisoning the very springs of life, and preventing the vital forces from acting on the fresh material offered. The *old* particles must be cast out before the *new* particles can be received, there being no place for them.

The periodical return of meal-times, with their usual *temptations*, to satisfy the mere appetite for food—the various highly seasoned dishes so commonly in use—make us too often forget the quiet hints which we receive from our own sensations, and we add on "raw material" for our unready builders, without considering the natural result of "mixing things new and old," which is often the cause of fermentation, acidity, flatulence, indigestion, dyspepsia, with its attendant demons of constipation, and its twin-brother, diarrhœa;

or the heart may make a violent effort to clear off the strain upon the general strength, and end in fever or inflammation, which is indeed but Nature striving to do her best for relief of her over-tasked servants.

No food can be safely taken into the stomach unless required for use; and in proportion to any previous activity, by which we have built in or assimilated the last supplies, and thrown out a due proportion of used material, can we comfortably and beneficially receive fresh supplies. While the last meal is undigested, to send more food into the stomach is the frequent cause of indigestion and accidity. No living creature can evade this law of life. Food, we must ever remember, is given for strength; and strength for use; and like all our talents, this is committed into our personal care and responsibility; while we must render an account for every breach of trust, or violation or neglect of use, which is repaid us in discomfort or disease.

Every law contains in itself, in the act of obedience or disobedience, its own special reward of comfort or pain. The universe of the Father is admirably planned, even although man is often placed, individually or socially, in circumstances in which he suffers for or through others; a fact which may impress us with the certainty, that others will suffer through our neglect or wrong-doing, thus giving us another motive to consider the end of our actions.

In youth, and in the active period of maturity, we require liberal supplies of food, to build up and maintain our bodies in strength; but after middle life, less

food is necessary, either in quantity or nourishing quality.

One of the commonest causes of disease or ill-health, in late middle life or old age, is a *too nourishing diet.* This idea of keeping up the strength is a common fallacy, which has lost many valuable lives, long before their time. It is overlooked, that now the body requires only to be kept up to its present bulk; and less material being wasted or used in active labour, and less nourishment called for, *a very little beyond actual requirements* will produce biliousness, with oppression of the heart, headache, and even a degree of fever. All such conditions are caused by the extra strain on the vital force, in its efforts to decompose and throw out what it cannot use, or has any use for. The building, being completed, requires only watchful upholding, or repairs, for which small supplies are in demand. Remember, that all food and drink must be digested and assimilated—used—or expelled as unnecessary material, and for this extra work a heavy tax is laid upon the diminishing vitality of age.

In this strain, the heart, our toughest and hardest-working organ, is frequently tried past its strength, when it breaks down, and the end is apoplexy; or, in the case of a long-continued strain, we name it heart-disease, when it might in either case be often termed—food-disease.

All persons, especially those in middle life, with sedentary habits, or in old age, when life has become a time of quiet and rest, should guard against the recurrence of such symptoms, as they are fre-

quently the precursors and monitors of serious, it may be, fatal danger. The safest means of relief is *a short fast*—missing food for one meal, or even a day's meals —and, when necessary, resting quietly in bed to maintain warmth; warmth being maintained, there is less waste of tissue, and therefore less need for renewal of supplies.

As age advances, without the discomforts of premature decay, we feel a freedom from pain, with even an increased enjoyment in the natural delights of life; and our condition and surroundings, food, rest, warmth, sleep—all are intensified in their sweetness as we realise the results of early attention to the laws of our being. We may, indeed, even outlive many inherited weaknesses, and having paid the penalty of the sins of our progenitors, may legitimately enjoy the result of our obedience; and in fulness of heart we may thankfully rejoice in our immunity from the usual, but not necessary accompaniments of age.

The mind of man or woman should, in advancing years, be turned, in thought and affections, towards the elevating subjects of that life which they must enter upon sooner or later, if only as a preparatory step to the realising of what must one day be for them a conscious verity. The soul that comes from God seeks to return to Him, in whom alone it can possess fulness of joy. "We shall be satisfied when we awake in thy likeness." "At thy right hand, are pleasures for evermore."

Every experience or circumstance in our earth-life has some teaching of the Spirit, tending to elevate and

draw our thoughts upwards, and wean us from this lower state; and when we have fulfilled the purpose for which we have been sent into this earth-sphere, in separating ourselves from selfish or downward tendencies, we are ready to enter upon a new theatre of existence, with enlarged ideas of life, and its high possibilities of attainment. One thing we must not forget, the treasures we go to find in that new sphere have been *laid up by ourselves* while on earth. *These* are the treasures which cannot be stolen or wasted, by thief, or moth, or rust, but await us in the home which the Lord has provided for all who are ready to go in with Him to the wedding feast.

Our talents or possessions are for the benefit of our fellow-men and the worship of God, (and these are found to be synonymous terms, or, at least, interchangeable, and necessarily conjunctive,) and it is in employing (or putting to usury) our several talents that we acquire possessions in heaven. We may have but one talent—it may be but a little one—but as we *use* it, so shall we find it, even though it be our example in patience and suffering. Our "unspoken influence" may be stronger than eloquence of tongue, and a power of good or evil. Thus we must see to it, where we put the weight of our desires, flowing out to benefit or to injure our neighbour. It follows as a natural sequence, that, in proportion to our conscientiousness in fulfilling our duty on earth, in faithfully obeying the law according to our knowledge, we increase our capacity for use, and our power of realising the delights and enjoyments of heaven.

"Walk and work while it is to-day, for the night cometh when no man can work."

But with the willing mind to love and serve God, in doing all that is in our power to benefit our fellow-men, as we have opportunity, we lay up for ourselves "treasures in heaven," with a foretaste of peace on earth. Obedience to physical law gives health of body; obedience to spiritual law gives health of spirit; and together these conjoin to ensure our happiness. This obedience consists in the control and guidance of all our functions and faculties, with longevity as the outcome or fruit; and as life advances to its completion here—whether it be to seventy, eighty, ninety, a hundred years, or far beyond this period (which many individuals have attained)—it signifies but little, since life under such conditions, is simply an emergence from one peaceful state into another, and the change may be made almost unconsciously—falling asleep here, and awaking there.

But the awaking we will not attempt to describe: as the power to enjoy, so shall be the satisfaction; our restfulness and peace here are but the earnest, with an opening perception of our anticipation of the joy and delight, with unbounded freedom, into a kingdom where goodness and truth dwell in fulness, and where we feel assured that *every pure desire of our affections will be gratified.*

For even in this present sphere we may realise feelings of much comfort and happiness, until the calm sleep of death liberates us from the bonds of the flesh.

Almost all the pains and weaknesses of the aged, or

after mid-life, are the fruits of some neglect, over-strain or error in youth, often from our ignorance of the laws of life.

Our ruling motive will help, or hinder, us in outliving these errors, and sweeten or poison the days which remain.

Solomon, with his well-known diatribe, the weary burden of a sated voluptuary, whose early promise of wisdom and piety is quenched in the fires of his sensuous life, indulged beyond the power of nature or common sense, may be remembered with pity as we trace the results of his folly, in the lamentations of his dearly-bought experience. "Vanity of vanity, all is vanity" to him who has spent his strength *in* vanity and vexation of spirit.

The man who gratifies his every fancy in building fine houses, in planting gardens, in serving himself with all that art and culture can minister to him of luxury and elegance, and forgets that life consisteth not in the abundance of a man's possessions—living to self for the pleasure of the day—finds the bitter *after-taste*, which such self-indulgence entails, an ingredient of misery and dissatisfaction, which cannot be evaded. When we sow to the flesh, we reap premature exhaustion and corruption; when we sow to the spirit, the voice within us, calling us upward, we are able to enjoy and appreciate the true pleasures of earth-life, in preparation for the fuller enjoyment of the pleasures of the higher life beyond.

In Solomon's example, we see that great wisdom or intellect does not imply goodness or pure affections;

while there can be no happiness apart from goodness and unselfishness.

Many examples in history show us how some of the strongest-minded men, in all ages, have been the most debased and miserable, because they have used their talents to gratify their ambition or vanity, instead of devoting them to the benefit of their fellow-creatures.

Compare the disappointed lamentings over a wasted life of self-glorification, in the example of Solomon, with the calm delights, and self-forgetful exultation in the happiness of others, exhibited in the old age of the "beloved apostle," John, who continued his active benevolence as a missionary of the "gospel of peace and good-will to man," through a life of much danger and trial; and when led into the church to speak once more to his people, nearly a hundred years old, and blind, he lifted up his hands in blessing, and repeated his favourite injunction, which, indeed, may include *all* practical religion, "Children, love one another—love one another!"

CHAPTER VII.

ARM LABOUR.

OUR present age may be well called "the mental age of man."

Education of the mind is cultivated to such an increased extent that the body is frequently neglected, both in growing youth and maturity. This has the

necessary result of over-stimulation of brain-force, and the consequent deterioration of muscular and digestive power. We have tried to impress the reader with the necessity for a HARMONY in the exercise of his various faculties, and must repeat the warning, that without actual labour of a moderate but sufficient amount, health cannot be sustained; especially in the case of all whose daily occupation is of a sedentary nature, should regular and systematic exercise, in some form of useful labour, be taken for the sake of health. Country walks—not along straight, dull roads, but where attainable, through bye-paths, over fields, uphill, by river-side, or over breezy moorland, where the air is still vital with fresh life, drawing deep draughts of the living element, and using the arms as freely as the legs, that every portion of the body may be duly exercised—not as by intention, but through the variety of our path; here leaping a stream, there climbing a wall—here resting on a dry stone dyke, to admire the prospect beneath us, there stooping to clear the field of encumbering stones, that may more usefully mend a gap in the low boundary wall we have just crossed. But, above all, there is no better help than an axe and an old stump of a tree, which requires to be hacked and hewn at with a will, to get it out of its deep-set hold. With a good axe, and freedom over the fallen trees in any of our neighbouring woods, many a sluggish temperament may be roused to active enjoyment.

Our worthy Premier has shown a good example by his active habits with his axe; and, I have no doubt, he finds the outlet of his surplus vitality a safeguard

from the excesses of mental toil, and the over-strain of cerebral action, consequent to his incessant political labours.

The late Archbishop Whately was likewise accustomed to relieve his pent-up energies by the same method; alternating head and hand labour to maintain health for usefulness. All physical life must have its outlet physically.

Labour has been relegated to a class who are dependent upon the capital of others for their daily bread; and hence a false and selfish reasoning has been rewarded by its logical sequence; since multitudes, finding life insupportable without this natural outlet, and seeing it is the badge of servitude, have recourse to *unproductive* labour, and pass their time in make-believe work by games of exercise, hunting, shooting, boating, angling, etc., and to such a degree that their amusements become the serious business of life, to the neglect of all social and personal duties as *men*, while the language and bearing of true labour is travestied, by those whose heaviest day's *work* is a tramp over the turnip fields after the partridges, or a hard ride over a "stiff bit of country," after a poor hunted fox or hare.

But labour, to be healthful to mind and body, must be productive of good to the labourer and his neighbours. All are constituted to work for the general good, and each has his peculiar talents, it may be of hand or head, for the various duties of the position he may be called upon to fill.

Still, all athletic games are beneficial to growing

youth where not carried on to excess, since excessive labour or exercise is as prejudicial as the want of it. Arm or chest labour relieves the brain of its concentrated vitality, directing the life-force to the digestive and muscular organs; expanding the lungs and removing latent causes of incipient disease. I have often occasion to advise my patients, who may be suffering from over head-action, to cultivate more active habits, and, by deep inspirations, expand the chest, and cleanse the lungs of accumulated secretions, by filling them again and again with fresh, cool air. I consider for this purpose that arm-labour, as with axe or hatchet, and, if possible, in the open air, is a valuable aid in recovering strength to the chest, weakened as it often is by long hours in office, or other sedentary position. In short, a *change* of position and occupation will soonest recuperate the tired labourer, whether the manual worker who can turn to his books or scientific pursuits, or the head-worker who can start on a long country walk, or find some real exercise within doors when the weather is against excursions. Activity, with arm and chest exercise, is one of our chief remedies and corrections for the present excessive cultivation of the mental powers, either in profession or business.

Many of our city men preserve their health by a moderate amount of labour in their villa-gardens; but too often the over-strain of the day's business, followed by the hearty evening meal, unfits them for this wholesome exercise.

We have only a certain amount of vitality as capital,

which, if we concentrate in one direction, leaves the other functions starved. Thus over brain-action prevents digestion, and the arrest of the latter leaves the whole man exhausted, by the double strain on heart and lungs. We must, therefore, see that we use such power in moderation, or where circumstances have compelled an extra strain, to remove this by suitable means, including *rest of the whole organism*, till the strain is lightened.

After any undue exertions, either physical or mental, a short rest should be observed before food, otherwise indigestion follows, and prevents comfort or usefulness for several hours.

CHAPTER VIII.

THE HEAD.

FROM the Head, sensation and power are conveyed to every organ and function of the body. It is the centre of nerve-power, and in sympathy with the minutest and farthest portion of the body.

To maintain the health of this organ and that of the system generally, it is necessary to attend to this invariable rule: Keep the *head cool*, and the *feet warm.* This, which is the index of a healthy and harmonious circulation, may be attained by various simple methods —first, for occasional over-strain, as after hard thinking, much writing or reading, or earnest speaking, a simple sponging with cold water, or, where convenient,

a thorough head-wash—first with tepid water and soap, then with cool pure water, rubbing briskly, till nearly dry, and covering, till dry, with thin woollen cap, or binder.

This, I find a great relief after any extra strain, or fatigue, and prepares for the enjoyment of the meal that may follow, with advantage.

Second, for chronic, or habitual headache, or discomfort, or sleeplessness, proceeding from over-action of the cerebral organs generally, use the face-bath every morning, before dressing, dipping the upper part of head, from one to three minutes, in the cold water, drawing up the water through the nostrils, opening the eyes in the water, and sponging or laving the lower *back* of head freely. This may be repeated with benefit frequently throughout the day. Before bed-time, thoroughly wash the head, and bind on, after partial drying, a soft woollen cap or binder, to prevent chill and promote exhalation of heat during evaporation from the damp hair.

For deep-seated causes of sleeplessness, I have given with advantage the following: Wring out of cold water a cotton nightcap—the woven kind are the best for the purpose—and a somewhat small size, in order to grip the head firmly; put this on well down on the forehead and backhead, and cover closely with woollen cap or binder. Repeat this nightly, and if one cap is dry before morning, wear two wet caps under the dry one.

Or, take a strip of soft cotton or linen—old towelling or sheeting is preferable—two yards long by four

inches broad; wring this out of cold or tepid water (according to the warmth of the head), and wind closely round over the ears; cover with strip of flannel, twice round, or with close woollen cap, and fasten securely from draughts of cold air.

Cold foot-baths, one or two inches of water, for five minutes in the morning, after towel-bath; and while finishing rubbing, etc., is a simple and efficacious help to draw down the vitality from the brain to the starved organs, equalising the circulation, and relieving the head of strain: these may be also taken in the evening, one or two hours before bed-time, at a comfortable fireside, with a rug over the feet and bath, for ten minutes to half-an-hour, as may be felt agreeable, and with great benefit, relieving the head of giddiness, and acting similarly, but more conveniently, to the sitting or hip-bath, which involves more trouble. Many business and professional men, who have come under my notice, find these simple methods of relief and prevention a thorough and effectual remedy for headache, flushing, giddiness, insomnia, and discomfort from over-strain.

Daily attention to these simple means strengthens the head, and all the senses are quickened or renewed in their normal activity, where the nerves have been impeded in action by cold, or over-activity, or disuse. Hearing, sight, smell, and memory are sharpened, and even the vocal powers have been rendered clearer and more vigorous, by the gradual loosening of congested or imprisoned secretions, and the consequent renewal of the various organs. Where, however,

the injury has been from digestive, or alimentary, or from chest or lung disarrangements, more elaborate treatment may be necessary, for which a personal examination may be advantageous. Still, I have known very many cases, where a steady improvement has been gained by the foregoing convenient applications, without entailing loss of time from the usual daily pursuits. For more information on this important subject, I refer the reader to my short treatise on "The Head, its Relation to the Body in Health and Disease," in which he will find a full account of the various modes of treatment for cerebral disorders.

The particular attention of all professional and business men is directed to this treatise, as it contains much information of interest to all who suffer from mental strain, or over-activity of this organ.

After mid-life, feelings of fatigue or weakness are more consciously experienced. The beatings of the heart afford the best symptoms whereby to test the effects of our labours, which cannot now be safely prolonged, as previously, when the capital of our vitality was unbroken by the various accidents of life. Undue strain must be avoided as we proceed into the decline of life; means of preserving health will be found in *economising* our strength, and, by greater regularity and care, husbanding our resources. Such extra duties as we might safely have overtaken in the plenitude of our power, we must avoid now that our natural period of rest is arrived. Others must be allowed to enter upon our labours, and supplement what we have been unable to finish.

The aged must also attentively measure the safe amount of labour they can undertake, by the amount of food which they can digest, and the soundness of their sleep, avoiding conditions of weariness or undue exhaustion, and maintaining due warmth, etc. The HEART especially complains if we over-exert its strength, by running, or other violent exertion, in *laboured breathing*, all action being accomplished by the alternate flux and reflux of blood *from* the heart and *to* the heart.

In age, WISDOM and JUDGMENT must supersede IMPULSE, and lead us to seek the accomplishment of our efforts by skill and experience, rather than by mere physical force. Mind must more than ever rule the world of matter; persuasion and conviction must supersede mechanical compulsion.

We see this law operating in this advanced age of society, both in the government of nations and in the fields of science and manufacture. The world is less under the rule of irresponsible and despotic dictators than in former ages; while principles and reasons are examined into and discussed by Councils and Assemblies, and arbitrary measures are avoided, both in domestic and foreign policy. The voice of the people begins to be listened to, not as that of the ignorance and folly of children, but the reasonable and mature ideas of men with rights as well as duties.

In all the various mechanical arts, we find mind entering into the contest with overwhelming superiority to mere animal or brute force. All the hidden powers of Nature are, one by one, being brought under the rule

or dominion of Man, who enlists them in his service; and by suiting himself to the laws of Nature—or, say, putting himself in sympathy with Nature—discovers her secrets, and binds them in open triumph around his conquering brow. The once dreaded elements—fire, wind, water, lightning, have been tamed and turned to man's use. But we have a still higher conquest to make before the world becomes the scene of its greatest triumphs. We have developed intellectually or mentally, till our hearts are lifted up in the pride of our minds, and, like the Babel-builders of old, we think to pierce the very heavens themselves. But, now, we must cultivate the highest and most neglected element of our nature—our affections, which must be likewise elevated *with* the mind, or hardness of heart, unbelief in the Unseen Source of our being, and chill indifference to our neighbours' good, will prevent true harmony and health.

In the early stages of life, self-preservation calls forth a degree of selfishness, combined with ignorance, which blinds us to the benefits of mutual or social help; in the next stage, the present self-interest and gathered knowledge give us motives for doing good, which are still but a combination of selfishness and benevolence; but, in the future, we must seek our neighbour's welfare, with purer and more disinterested aims, and in *his* good we shall find *our own*—giving, we shall receive; blessing, we shall be blessed; loving, we shall be loved.

The faults of childhood and youth, with the *innocence* of *ignorance*, must be outlived, and lost in the

ripe judgment of age, the *innocence* of *wisdom*. This true child-state may be attained even on earth, when the desire is to do unto all, good, as we have opportunity, rejoicing in our capacity, and delighting in the result.

In age, the HEART is often injured, and prematurely gives way, not from inherent disease so much as from exhaustion; and this most frequently from over-strain, or excessive labour of the digestive organs, or the physical demands of the muscles.

Every ounce in excess of our ability to digest, throws additional labour on the heart, as the surplus must be thrown out by one or other of the excretory organs, which require the labour of the heart to keep them in action. Fermentation, with flatulence from gases (the product of surplus heat from undigested substances in the stomach and bowels), is one of the most oppressive influences upon the heart, which suffers by the inflation or swelling of these other organs; and, by its presence, lessens both the breathing capacity, and the full contractile and expansive power of the lungs. Many cases of so-called heart-disease I have found to be the result of laboured digestion; relief following the adoption of a sparer diet, and other simple means.

We must not overlook the importance of sound sleep, in proportion to our nervous and muscular exertions. Sleep is more refreshing if the head is washed or bathed before bed-time, and the hair, if damp, bound up close to the head by a thin woollen binder. This has been found of wonderful benefit, especially in old age, soothing and refreshing the tired brain,

and strengthening it for a new day's work, or enjoyment; for, without enjoyment, we have seen that old age is of little value.

The very qualities which combine to ensure us this state, supplying us with the means of happiness, peace, and goodwill to those around, enable us to attain the higher delights which flow from our experience of all life's pains and pleasures; age, or time, is indeed seen to be necessary to teach us the value of life, both in its fallacies and realities, while gradually loosening or weaning us from those ties which bind us to its engrossing interests.

Friends go on before us into the "land of the shadow of death," and we are left behind in the body, while our affections are drawn after them, till we anticipate without regret, and often with quiet joy, the time of our full departure from what has in turn become for us a land of "darkening shadows," from the very brightness of the opening view of the Home, where there shall be meeting for parting, and life for death. And as the winter of Nature is but her resting-time, while she is elaborating the new forces of life which disclose her beauty and power in the spring, so may old age be regarded as our resting-time, when the gathering forces of our inner life are making ready for the glorious out-birth in the Beyond.

CHAPTER IX.

OIL, ITS USES IN RELATION TO HEALTH.

OIL, or some other fatty substance, has been in use in all ages, under the most extreme conditions of heat and cold, with evident benefit, alike under the tropical sun of the Equator, and amid the regions of ice-bound seas.

To the daily habit of bathing, generally prevalent in all civilised countries, and especially among our own middle and upper classes, with the excessive use of soap, I have already alluded as one of the natural extremes into which society is prone to fall, and through which excess much ill-health may be acquired.

The ancient Greeks and Romans, like the modern Turks, indulged greatly in the use of warm baths; but counteracted the relaxing effects, in a measure, by the use of oils and other unguents, as an assistant element to the shampooing and vigorous rubbing, which invariably followed the various bathing processes.

Having had occasion to draw upon such applications, in endeavouring to restore health in difficult cases, where the digestive powers were enfeebled by previous habits, or by the use of active medicines, I will give an outline of the conditions requiring such treatment, with the best means of applying it.

I may premise that individuals, of a full habit of body and a surplus of fat, have little need of its use; although, in connection with rubbing and shampooing, it facilitates the process (especially after a warm bath)

of manipulating and kneading, in loosening many obstructions, and assisting the heart to perform its various functions, while stimulating all the secreting and excreting organs in their various operations. But the constitutions which chiefly call for such help are those whose digestive powers are weak or injured.

Life, in a healthy constitution, acts from within, uniformly circulating to the surface; and, while generated in the digestive organs, the natural warmth is radiated to every part in equal and harmonious temperature, producing a feeling of indescribable COMFORT. With this heat is exhaled the wasted or used particles of our body; and in proportion to the free outlet by the skin-pores do we emanate these wasted particles, which otherwise remain in the pores, beneath the pores, or are turned back to seek an outlet by the internal organs.

Under the skin lies a layer of oil, or fat cells, which are secreted from our food, in abundance, when the digestive organs are in health; but which are insufficient in quantity where these are unable to assimilate food rich enough for Nature's purposes.

These oil-cells form a protection from cold and injury from without, as well as impart a genial, velvety smoothness to the skin; which may also be generally assumed as one of the indications of health.

In opposite conditions, with weak heart and feeble digestion, and after extra fatigue or exhaustion, our life-power recedes to the inner organs, and the lungs and skin become actively *absorbent*.

It is therefore in the cooling stage, after any sweating

or other bath, that the body is prepared to receive and benefit by oil-rubbing; and, as a daily habit for those who require, and can apply it by their own hands, there is no better time than immediately after the morning or forenoon bath, when the skin is fresh from the daily cleansing necessary to all in some one form or another, to remove the exhaled impurities which have accumulated *in* and *on* the skin.

The natural deposit of oil is also the reserve stock of heating material for times of extra combustion; and it is this deposit which is drawn upon the first, in conditions of weakened vitality, when the digestive organs are deficient in power; or, in fevers, where an excess of action draws upon all that can be consumed by the fire which has taken possession of our strongholds.

Now, it is in fevers that we see one of the finest illustrations of the old scriptural command, "*anointing with oil*, in the name of the Lord;" for, after duly bathing or washing the body with cool or tepid water, removing the impurities from the skin, we may assist the patient greatly by gently rubbing over with pure vegetable oil, which will furnish substance to supply the *extra consumption*, and thus confine the ravages of the destroying element to the less vital organs on the surface. Also, we assist by the bland, *smoothing* properties of the oil in removing the irritation to the nervous system incident to a feverish or *dry* condition of the system, thus assisting the patient to bear, with the least amount of permanent injury, the purifying process which he is undergoing.

In fever, more heat is generated than the digestive

organs have the power to meet in oil-substance or *fuel*, hence the benefit of adding on extra supplies from without, and thus preventing the destruction of more vital tissue.

But apart from these incidental conditions of life, we have to consider the variable influences of temperature in our moist and often ungenial climate, even to healthy individuals.

Habits are despotic, and rule us with rods of iron. We may carry any system, however good in itself, to the extreme of folly.

But judicious washing and oil-rubbing meet many cases of disease, weakness, or feebleness of constitution, which have baffled all other treatment. These must, however, be discriminated with care both as to conditions and mode of treatment, to ensure success.

General warmth must first, in all cases, be secured by some form of hot bath, as the plunge bath, at 100° to 105°; the steam, or vapour, or Russian bath, 100° to 130°; or the hot-air, or Turkish bath, 130° to 160°. All these are useful in different conditions of feeble health, when carefully administered, and followed up by the *cooling* or *cold* bathing, for which they are chiefly valuable as a preparatory stage.

Moist warmth assists the heart in drawing the blood to the surface, which is thereby enabled to exude a large proportion of watery and other particles—as in many forms of *blood-poisoning*, whether by the skin, lungs, or stomach;—or in infectious disorders, by contagion, or inhalation of the germs of disease, as in various epidemic disorders.

It may be particularly observed that, in all such epidemics, those who suffer most readily are already predisposed to the noxious influences, by conditions of deficient vitality, and therefore inability to throw off the evil, from a want of life-power in themselves.

Fear of infection, also, by its depressing or devitalising effect, predisposes to influences which would otherwise do us no harm. Courage, confidence, HEART-POWER, preserves the citadel of life, and defies the enemy at the gates. But where, from any enfeebling conditions, impurities have been inhaled or absorbed, warmth applied to the point of free perspiration, with copious draughts of water, warm or cold according to the sensations, will successfully clear the various fluids of all foreign or hurtful elements, in a safer and more effectual manner than the former processes, viz., by irritating substances acting through the stomach, and re-acting with more or less violence in the Heart and Nervous system.

In extreme cases of blood-poisoning, and similar conditions, these sweatings may be repeated daily for a considerable period, followed by one or other of the cooling processes, and afterwards by gentle friction and oil-rubbing. Violent measures by any system, hydropathic or otherwise, are attended with danger to the patient, proportionate to the amount of stamina or vitality which can be drawn upon. But prolonged gentler treatment, with due care as to essentials —as of food, warmth, fresh air, etc.—will recuperate the vital powers, and by the time the poison has been all drawn out of the system, the patient has

already proceeded, so far, to build up new material, and thus secure new strength to complete his recovery. For, it is one of the triumphant facts of the hydropathic system, that we pull down and build up alternately, and continuously; and, in fact, we aim chiefly at restoring natural conditions, for Nature to resume her own work, of wasting and renewing our bodily substance. In cases of diseased conditions, we assist Nature by supplementing the heat, in which the patient is deficient, that the *evil* may be cast out more speedily to make room for the *good.*

Cold or cool bathing, from the wet-towel rubbing to the cold plunge, or douche, *contracts* and *braces* the veins, so that the blood is gently forced into the heart, and thence into the lungs, where it is immediately vitalised, and sent back into the interior, and thence into every tissue, embuing them with new life. At this stage, the body is hungry for new material—food—to rebuild itself, but care has to be taken not to overtax the recovered or recovering strength of the digestive organs; and therefore less food, and less nutritious food will satisfy its growing demands, if an application of oil to the stomach and trunk generally is rubbed in daily, or twice daily. Also, where a condition of dryness shows the necessity, an extra supply may be given to the HEAD, which is almost certain to be as much in need of the sedative and strengthening influences of this invaluable element.

In ordinary health, when the individual is unable to secrete oil in sufficiency—that is, when he is too dry in the skin and neighbouring tissues; or where, from

constitutional temperament, he consumes his own natural oil more quickly than he can make it (as in the case of many in this "FAST-LIVING" age), it may be advisable to use oil-rubbing daily, or every second day, as sensation warns, and this may be safely administered after a brisk rubbing with a wet towel. For such cases the daily plunge, or full bath, is too exhausting of vitality, although from habit, supposed to be necessary to health and comfort. In youth and robust maturity, with surplus vigour, we may indulge in and enjoy the cold plunge or shower with benefit, if followed by exercise; but, after mid-life, and especially in old age, there are few who may continue this luxury with impunity. The rule in all cases is clear and simple: Cold bathing, followed by *prolonged comfort and warmth*, is beneficial; followed by chill, or fatigue, or indigestion, even after a couple of hours, or lassitude some hours after, may be considered either improper for the time or season, or to be used but occasionally, and under favourable conditions.

As much as half-an-ounce to an ounce of oil may be rubbed in daily; but the system will give due notice when it has enough, as when supplies are still on hand, no more oil can be absorbed. On no account must any be *left* ON *the skin*, which will be thus checked in its exhaling action, besides the annoyance and discomfort of soiling the under-garments, and thus of probable chill.

When supplied by another, as in cases of sickness or feebleness, the rubber must be, if possible, of "clean hands and pure heart," and of a generous or sympa-

thetic spirit; otherwise, much harm may be done, or, at least, less good will be given. No one in unsound health, or even in weak health, can benefit the patient, as such have neither stamina nor physical goodness to spare for others, and where decided conditions of disease are present, may seriously injure one whose receptive powers are unusually active to *all* influences. In endeavouring to administer help to any one, either by food, medicine, water, oil, or even advice, it must be remembered that we, by whatever medium, impart something of our own life; and the more earnest and intent we may be in our purpose, the more of our *life* do we transfer to the receptive organism. Thus we have explained the benefit derived from some, more than from others. Quick, lively, *vitalised*, and generous spirits give out—consciously or unconsciously—their life-forces to all around them; while dull, inert, *reserved* natures chill and devitalise their companions more literally than a "wet blanket." Hence, the necessity of all in attendance upon weak persons, or the sick, or the aged, being of a frank, genial temperament, warming and brightening up the flickering or fading fires of life by their own emanations of loving sympathy and warmth. Lastly, the patient must be open, or receptive, to this sympathy, or it falls back on the generous heart, chilled by contact with the cold nature it has tried to warm, and cannot, because it "would not receive it."

There is no more depleting work than that of a rubber, where the patient is irresponsive to sympathy. Where this is the case—happily a rare one, since sick-

ness breaks down the pride and hardness of most hearts; or where the patient is insusceptible to grateful feelings, willing to receive, but unwilling—even were it in his power—to give, the attendant experiences sensations of exhaustion and prostration, in proportion to his own sensitiveness to the conditions. But where the patient is both receptive and grateful to his attendant, both giver and receiver are blessed in the renewed strength which is transferred from one to the other, at every touch of the hand, and even with the unexpressed *desire* to give life to the one who needs it. In such conditions, the oil is but the physical medium for conveying the life-power by the operator's hands, and may be regarded as a form of that "laying on of hands," which was so effectual in the earlier ages of our Church, and which may be yet as effectual in these days. "If ye have faith," ye shall receive the power; but because of unbelief, and in many because of ignorance of this spiritual power, few can accomplish the mighty works which were one of the signs of a Christian believer in apostolic times.

And even "*He* could do no mighty works" in unbelieving cities, "*because* of their unbelief."

CHAPTER X.

HYGIENIC PRINCIPLES.

OUR hereditary constitution reveals in every individual an impaired vitality, or tendency to weakness or disease, *in one organ or another.*

This local weakness, involving a susceptibility to external influences in connection with our daily activities, imposes upon all the duty of observing in ourselves, and in those under our care, WHICH is the organ requiring most attention and least strain throughout life, as by strengthening such *weaker organ* we avert many of the probable causes of disease.

With this view, I give a few simple details of our chief organs, with the several means of strengthening them from the hygienic or health-giving influences, which are within the reach of every one in some measure.

1st. The HEAD: the crowning organ, embodying the BRAIN, with the NERVOUS SYSTEM.

This system finds its centre, or terminus, in the head, conveying from it, to every fibre and tissue of the body, intimation of the spirit's will, and bringing back sensation in enjoyment or suffering from every source. It also includes the senses of *hearing*, *seeing*, *smelling*, and *tasting*; while it shares with the other members the sense of *touch*. In fact, the head is the crowning organ in a higher sense, as it contains those organs which connect soul and body, and which enable the spirit to manifest itself, and communicate with others.

From early youth to extreme age, it is both strengthening and restorative to maintain the habit of DAILY BATHING of the HEAD, either in connection with general bathing, or as a special duty, using soap occasionally as required.

All the functions and senses will be benefitted by

this simple means, and rendered less liable to cold or nervous diseases.

With average health, cold water is preferable, modifying the temperature to the weather, being guided by sensation; but hot water—or, say, above 90 deg.—should not be used, unless in special cases, from its enervating and relaxing effects.

With long hair, or thick, it is necessary to bind it to the head (after so far drying it with the towel) by a *thin woollen binder*, until *quite* dry. By this means, while the skin of the head has been freed, by washing and rubbing, or champooing, from its accumulated dust, excreted waste particles, and *surface* heat, further evaporation of *internal* heat is promoted by the damp hair, which, being confined to the head, acts as a cooling agent, and relieves congestion of internal organs, by assisting them to throw out accumulated and effete material. Also the various senses are thereby strengthened, by the *freer* action of their respective organs, all hindrances being removed to such action, by the more regular working of the various secretory glands.

In general, it is well to wash the head, or, at least, thoroughly sponge it every morning; but with long hair, it is safer and more convenient to thoroughly wash and bind, as described, before bed-time.

But where there is a tendency to unusual strain, shown by heat, uneasiness, languor, or pain, it is advisable to wash or bathe the head, after any prolonged activity, whether of school or business, or other engrossing pursuit.

A tepid head-wash, at 80 or 90 deg., after any arduous duty, and *before* partaking of the evening meal, will be found refreshing and conducive to sound sleep. But as I have enlarged on this important topic in another and special treatise, with its beneficial effects in fevers and other diseases, I shall refer the reader to it* for further particulars, and proceed to

The *2nd* Class of organs, regarding which great care must be exercised in our variable climate, viz. :—The CHEST organs, including the Throat, Bronchial Tubes, Lungs, and Heart. Our space forbids us entering on any details of the various diseases, peculiar to this class through constitutional weakness, or from cold or chill, etc. ; but we may strengthen the WHOLE by daily rubbing the chest and throat with a wet towel, wrung out of cold or cool water, while partially dressed, so as to avoid unnecessary or injurious loss of heat, and afterwards rubbing dry, while breathing freely with deep inspirations, till a genial glow gives evidence of refreshed circulation. A little oil, well rubbed in after drying, will materially assist in giving strength, by softening and loosening any obstructed secretions.

Avoid all conditions of cold or chill during bathing, especially if not robust.

Both during bathing, and while taking exercise in the open air, no habit is so beneficial as *free, deep breathing*. Deep inspirations of pure fresh air are essential to all life, and more needful than food; since

* The Head : its Relation to the Body in Health and Disease.

food cannot benefit us, in the absence of fresh air, to vitalise the new material, before it enters into nerve and bone and muscle for renewed strength.

Also in proportion to the amount of our breathing power—or, in other words, the depth of inspiration by our lungs—is the amount of our heart-power; the lungs being the bellows, which, alternately filling and emptying with fresh vital air, strengthen the action of the heart, in expanding and contracting, and thus sending out and receiving the circulating life—the blood—through all the various organs.

Again, where the lungs are not fully used, by habitual exercises and deep breathing, the lower parts of these organs are liable to obstructions, in the form of unexpelled secretions, which accumulate, as mucus, etc., and of themselves initiate many forms of chest or lung disease. Thus regular exercise is necessary to maintain the lungs in their full excretory power. The weakness of one organ re-acts on the others, and deprives these also of their full power of action.

Another preventive, as well as restorative measure, in connection with colds and chest ailments, in the first stage, consists in attaining a gentle sweat, followed by a night's rest; after sponging *as soon as possible.* After any chill, sweatings, followed by a cool or tepid wash, are invaluable in preventing injurious effects from chill in *all* diseases, as the arrested exhalations of the skin and lungs, or the secretions of any other organ, may settle on the organ most susceptible—or, say, least able to throw off the devitalised material.

3rd. Stomach and digestive organs. None of our

requirements in life demand so great a share of our daily attention as our habits of eating and drinking.

Man alone, from his mental powers, is able to dispense with the labour which all other animals require to obtain their daily food; but he can devolve on others this labour, often to his own hurt, since we see that labour, in some form, is necessary for the continuous and full enjoyment, even of food; and, as we have already pointed out, perhaps two-thirds of the diseases, in city and social life, are the natural results of our injudicious habits of diet. But we refrain from again entering upon this subject, and proceed to the curative processes suitable to diseases of these organs, especially in conditions of OLD AGE. The power, both to assimilate fresh and throw off waste material, becomes less, year by year, as vitality diminishes; hence the need of balancing the supplies of food, both as to quantity and quality, or amount of the nutritive element to the decaying strength.

Disease and death being ultimately caused by a cessation of power of the excretory organs, and consequently of the digestive or assimilative, we must guard against the first symptoms of weakness, and remove obstructions by assisting, first, the skin to relieve the impaired organs, by gentle sweating; also, by the trunk pack, or body bandage, or local compresses applied to stomach, liver, or bowels, as necessary. *While maintaining warmth*, TWO general conditions of weakness in the digestive organs are expressed by (1st) CONSTIPATION, with defective action of the LIVER as shown in BILIOUSNESS, and

(2nd) INDIGESTION, with or without ACIDITY; tendency to diarrhœa, etc. Both these conditions may be alternate in the same individual; first, by weakness in retention of the secretions, resulting in violent or spasmodic expulsion, according to the amount of vitality, but both proceeding from a like cause, namely, a general debility in the abdominal organs, resulting from over-strain of the digesting power, from improper food, or from a deficiency in vital power, wherewith to digest the *quantity* consumed.

For such, with age or debility, our general treatment is to increase the temperature by (1st) gentle sweating, as by Turkish, vapour, or other convenient bath; or (2nd) by the warm wet sheet pack, or the half (or trunk) pack for one or two hours, followed by cooling and brisk rubbing. This treatment relieves and strengthens the various organs, without injury, as in the case of the usual internal remedies of tonics and stimulants, which are required, and tend only to exhaust the vital elements.

Drugs, we are certain, do more harm than good; being unreliable in their results, direct and immediate, indirect and cumulative.

But for the varied and numerous forms of disease connected with the digestive organs, as well as the treatment suitable to the several morbid conditions, I must refer the reader to my work on "HYDROPATHY FOR HOME USE," in which fuller details of symptoms and treatment of the various organs have been given, with simple directions for personal guidance.

Specially with reference to conditions of AGE and

NATURAL DEBILITY, I shall conclude my remarks on the best means of strengthening the system generally.

Let it be remembered, that the maintenance of health, during this period, even more than in earlier stages of life, consists *in the expulsion* of all waste and impure substances by all the various *excretory* organs, in conjunction with a regular supply of new material to be acted upon by the *digestive* and secretory organs in turn, and vitalised by the lungs as a *daily* supply for the wear and tear of life, in proportion to the activities and amount of waste.

In *disease*, this balance of waste and renewal is *impaired;* and the wasted material, being in excess, the vital power is too feeble to expel it.

In age, this tendency is one of the most prominent, requiring careful observation and assistance to aid nature *to maintain* action.

The first product of all vital force is HEAT, without which there can be no LIFE; therefore by *adding* heat (with moisture to release the obstructions), we give the strained organs the necessary help by supplying this deficiency of vital *warmth*. FEEBLE HEART action tends to imperfect excretions of waste substance. Feeble or oppressed head functions affect all the organs, generally the stomach first—lessening the supplies of nutritive element to make blood to maintain the daily waste. Then the heart beats more feebly and the heat-degenerating power is weakened; while, in connection with feeble heart action, the various secretions are retained or not *sufficiently* expelled, and disease begins from the retention of morbid matter *in*

one or more organs. Thus in such cases, whether from feeble health from any cause, or similar indications in age, warmth to the extent of gentle sweatings and bathing, as suitable, is wonderfully restorative to the whole economy of life.

The Head organs also, from several causes (as in feeble heart action), fail in age, although there may be inflammation *which also* creates extra waste. From the same cause likewise result the various liver, kidney, bladder, and skin diseases, troublesome and exhausting to the feeble powers of age, as all old persons suffer in suppressed secretions, from defective action of the heart and nervous system.

Even the feet and hands suffer from the same causes, and we may see this exemplified in the lowly blade of grass (emblematic of all flesh), which first fades at the extreme point, curling over in the instinctive effort to maintain heat and moisture for its life.

This leads me to the chief remedy available, both in premature wasting, or in the mature decay of old age. Premising that we have discovered and obeyed the laws of life, and put away or restrained the injurious elements and conditions which conduce to ill health, disease, and premature death, whether in over-indulgence of food, narcotics, liquors, etc., we find that the two grand agents for assisting us, in prolonging life and comfort, are WARMTH and MOISTURE.

With abundant heating power, as in youth, cold and cooling applications, in the various forms and modifications embodied in our hydropathic system,

stimulate all the organs and expel the morbid secretions; but in all feeble cases, from weakness, or in age, we must supply HEAT with the MOISTURE. General or local warm baths—95° to 105°—from fifteen minutes to an hour, are refreshing and restorative, with oil-rubbing, followed by REST. Tepid head-washing and shampooing loosens all the secretions of the brain organs, and soothes the nervous system, generally.

Washing and rubbing the CHEST with cold or cool water, while *maintaining warmth*, loosens the accumulations of mucus, etc., from lungs, bronchial tubes, etc.; and when the patient is able to be self-operative, the action of the heart is beneficially assisted by *the gentle* exercise of rubbing.

Cold sponging and bathing of the feet and limbs DAILY, when rising *warm* from bed, followed by vigorous rubbing with the hands, is helpful in maintaining an active circulation of vital blood to the extremities, thus preserving warmth and strength for locomotion and exercise, while preventing, in a great measure, all danger from Head diseases or congestive symptoms, as in Apoplexy or Paralysis.

Maintain warmth in feet and hands by suitable bathing and exercise, and thus relieve the whole system by drawing the circulation to the surface, especially benefitting Head and Heart.

Again we summarise the Laws of Life:—Breathe deeply, and maintain warmth by active motion, as far as is practicable. Assist defective action, in any of the organs, by temperance or occasional fasting, with the help of warmth, moisture, and sleep. Watch that the

supply of food is in proportion to the demands of the daily activities. Keep the skin in good order, from the crown of the head to the sole of the foot. Assist weak digestive and heat-generating power by gentle sweatings, warm bathing, shampooing, and rubbing with vegetable oil. View this life in its connection with the future,—the real life—and repress and subdue all habits, affections, or thoughts which you would not desire to carry with you into the Eternal. The fruits of the spirit are—Love, Joy, Peace, Health of Body and Mind: Life begun Here, and to be perfected in Heaven.

CHAPTER XI.

REPRODUCTIVE ORGANS.

THESE are the last in development, in men and women; and, being the highest endowment of humanity, demand our serious attention. The continuity, not only of our personal health, but of the human race, depends on the proper use of this endowment or talent, which God, our Universal Father, has entrusted to our care.

All life, below man, acts from what we call instinct, or mere feeling, or affection, without the control or guidance of judgment. But MAN, as man, led by conscience and intelligence, is raised to a more responsible position in the scale of creation, being made only a little lower than the angels, to whose

fellowship he aspires, and in whose work or ministrations he shares, being clothed with honour and dignity, and placed as vicegerent over the less exalted spheres of earth-life, which are to be guided and governed by him for Divine purposes and uses.

Man's progress, or advancement as individuals, and as a race, depends on the use or abuse of this endowment. Family relationship is the Bond of the Universe. God, the Father, acting on Nature or Matter as the Mother, has created all things, and perpetuates life, through the exercise of the reproductive element and function, embodied in atoms embued with life.

In discussions and treatises on this important subject, it seems to me that, while terrible abuses have been exposed and condemned, there has been but little consideration of the Creator's intention, or of the use of this endowment, or of its personal and social benefits, apart from its *direct* purpose as a means of continuing the race. The separation of humanity into Man and Woman, each endowed with imperfect or partial qualities or natures and abilities, leaves both sexes with a strong instinct of dissatisfaction with their own nature, and as strong a yearning for what they can only find in the other.

This instinct betrays itself even in early life; and is, or ought to be, employed even in childhood and youth to elevate the nature, by exciting the respect and admiration of what is lovely and praiseworthy in the early companionship of the family and school-life. The mutual benefit of brothers and sisters is apparent

in giving to each, objects of natural respect, affection, and sympathy; while each, in a special manner, is able to care for and help the other, thus developing the riper feelings of manhood and womanhood without stimulating them into premature growth.

The VITAL power, in childhood and youth, is employed in reproducing or rebuilding the body of the individual, and in proportion to its concentration on this work, will be the future strength of the man or woman, *as* man or woman. The loss of this power, either from constitutional weakness, improper — say immature — affections, stimulated by unseasonable occupations, immodest companionship, highly-seasoned food, nervous stimulants, etc., entails upon the individual a life of misery, with heart-cravings which nothing on earth can satisfy.

The tendency of our modern life is to hurry on the development of the youthful aspirant to manhood, and the CHILD—the BOY—often attains the privileges which cannot be safely indulged before maturity gives strength and judgment. Enervating habits of luxury, debasing indolence of body, over-stimulation of the affections and imagination by a class of prurient but attractive literature, over-cultivation of the mental and repression of the physical activities, with the natural reaction from unused energies, the unnecessary separation of the sexes at an age when the expression of the natural affections for companionship and friendship would give a safe outlet for healthy action, with a thousand real and imaginary hindrances to a franker, freer intercourse between the young of both sexes,

have been, and will be, in a very great measure, the underlying causes of this "Social Evil."

A want of calm consideration of the high—god-like—function, with which our Creator has exalted us into a pre-eminence of freedom and power, to reproduce, in His likeness, beings endowed with our own and His life—beings who may call us and Him father; who may give us and Him worship and affection, as they see in us and in Him what is worthy to reverence and adore; beings who may be filled with the intelligence and ardour of immortal seraphs echoing through the eternities the wonders of almighty love and wisdom;—a want of this consideration blinds us to the need of EDUCATING this great element of our nature into the controlling power for good, as it has been the controlling power for evil in the race.

As the dawning intellect opens, and with enquiring mind, the child or youth plies his innocent questions about the secrets of life, before his natural curiosity has been repressed by shame, or stimulated by immodest hints and suggestions of evil, it is the sacred duty of parents, guardians, or teachers, to instruct, with reverent solemnity, those in their charge upon these important functions; and while inculcating a reverence and respect for the sexes, encouraging that freedom of intercourse which, while mutually developing, reveals the mutual qualities which each require in the other.

Let such instruction be illustrated by pointing to individual families, living in loving harmony and mutual helpfulness, in obedience to God's Laws, with all the beautiful relationships, interwoven through

society by such families, for useful and mutual intercourse; while warnings, as to selfish or debased tampering with this noblest of man's functions, with the certain and self-punitive results of improper or immature indulgence, should be watchfully given, where there is need to fear temptation or inclination to transgress.

But wholesome activity in all youthful employments and enjoyments, especially in active outdoor exercises, with congenial companionship and sufficient natural outlet for the affections in family and social life, will prevent all such unnatural manifestations of prurient desire, by employing the growing powers in a wholesome and seasonable direction.

The separation of the sexes, in school and college-life, is only bridged over by the occasional intercourse, of the artificial and arbitrary restraints of our present social habits, which give no real opportunity for true knowledge of each other, but rather foster the evils we condemn, by encouraging foolish rivalry in outward personal and household extravagance, and neglecting the true duties of home. It is this Home Life which we would inculcate more and more as the nucleus, the basis and the stronghold of all social and national virtue. Family affections alone will safely bind up the life powers and preserve them in health, by directing them into natural channels, with a sufficient outlet to prevent the danger of repression. The daily calls upon affection and thought, from one member of the family to another, keep the heart and mind continually engaged in useful and beneficial

activity, with a motive which makes the labour sweet, and virtue (or self-control—self-possession) its own reward. For in Home, as it may be, and ought to be, man finds what he most needs—affection to strengthen him for the daily duties of life, sympathy to feel with him in all his aspirations after a more perfect life, and REST from the turmoil and daily annoyances which must come to all life. Here, in the safe stronghold of the family, sheltered from the rough blast of the world's uncertain weather, her heart fixed on the welfare of her little circle, as the sphere of *her* cares and labours, woman finds her whole nature filled and satisfied, as one by one her affections are drawn out and expanded, by her daily watchfulness and care, in ordering her household in comfort, and purity and peace. The heart of the woman is in her HOME, whence radiate or overflow her surplus energies and blessedness, but chiefly through MAN, who bears them outward into the world of action; filled with her strength and purified by her affection, he is strong for the right and the true.

Oh! that woman could but see how much she has in her power for the weal or woe of the race. Could she but understand how much stronger she is, when working through man, herself the quiet influence, infilling with active goodness the world's workers! Not that we would deny woman any of the rights she craves for in these days of action and revolution of many old-time notions, *but* we would have woman think how she may get all she is asking, and yet not have what she and the world most needs. Man and

woman, it must be repeated again, and yet again, are unsatisfied except when, in mutual helpfulness, they are *united* in their labours—in their joys, in their sorrows, in LIFE.

Not in rivalry of each other, can the real progress of the race be secured; but in the wise and loving helpfulness and co-operation of Head and Heart, can the higher life be attained by one or by all.

How beautifully has God manifested His wisdom, in the family relationship, in the reciprocal ministrations of parents to children, and of children to parents in declining life!

God's ways and laws are perfect, and His loving kindness and tender mercies are over all His works.

We conclude that marriage, under the guidance of judgment, and the due control of the reproductive function, is highly conducive to Health, Happiness, and Longevity.

It is not good for man to be alone, and still less is it good for woman; but as our social customs and the natural instinct of the sexes confine the question of choice to his side, the fault of celibacy lies most frequently at man's door, since it is his duty, as it is his privilege, to find out *one* whom he can bless with his affections, and be blessed in hers. And if he seek with a pure and unselfish motive, be sure he will find all that his soul requires.

"Married life has many sorrows, but celibacy few joys."

United, man and woman form the royal arch which holds up the bridge from earth to heaven; but take

away the key-stone, the corner-stone, and the whole fabric falls asunder, and is buried in ruin.

"And this corner-stone is Christ."

"Being of *one* mind, in Christ Jesus."

CHAPTER XII.

THE SKIN IN RELATION TO HEALTH.

THE Skin has a compensating, sensatory, and controlling influence over all the internal organs which it embraces and protects.

Maintaining the skin in purity, by bathing and proper clothing, suitable to the season and climate, is important to health, more especially in feeble health or old age. The skin *exhales* and *absorbs*, and both functions must be kept in good order.

Insufficient cleansing by bathing has been the chief cause of ill-health and disease in many countries, at different periods of the world's history; but in civilised countries with cold and damp climates, *excessive* bathing, with the over-use of soap, is a very common source of general debility, morbid sensibility, nervousness, and ill-health.

I refer to the chapter, on the Use of Oil, for fuller details on this subject.

The skin is the grand binder, or covering, of all the organs, holding them together as in the "bundle of life;" and I would impress on all, the importance of maintaining it in active health, as a safe means of

purifying all the internal organs, since the major part of our wasted material emanates or is exhaled through the skin-pores.

With chill from cold or damp, the secretions are repelled or checked in their outward course, and driven in upon some delicate organ, ending in inflammation or congestion ; and it is therefore important that, after any such influences or injury, immediate means be taken to restore the action of the skin, and so relieve the internal organs of undue strain.

I expect that action on and through the skin will gradually supersede the long established system of acting on the internal organs by drugs, etc., in removing disease.

The skin wastes and renews with wonderful activity; and is so readily excited, by simple exercise or heat, judiciously applied, to exude freely the blood impurities, or retained waste, or secretions requiring expulsion, that we can draw upon this external organ with comparative safety, and without injury to any other organ, to a large extent, with confidence.

After chills, and in cold weather, and in many of the diseases which affect man and the lower animals, judicious sweating is of immense use.

But I have already referred to this subject in detail, and would conclude by alluding to its efficacy in OLD AGE ; as an occasional sweat, either by Turkish, Russian, or vapour bath, or by one of the various simple appliances of home use, is highly conducive to the preservation of the general health and comfort.

In conclusion, I would draw special notice to the

duty of attending to our own health, with the view of giving others as little unnecessary trouble as possible. Moderate attention to one's own state of body will do much to render us independent and self-helpful, while able to assist the less vigorous by our example and knowledge.

In age, our perceptions of purity and goodness become keener, if we keep them active, but get dulled by want of use.

As the activities of life diminish, there is less call for fuel to feed the fires—less waste to be expelled—life ebbing peacefully and imperceptibly into the ocean of eternity.

CHAPTER XIII.

DIETARY REFORM.*

MY DEAR FRIEND,—I heartily sympathise with you in your new experience of household and family cares. You will find many difficulties, real and imaginary, brought before you by your alarmed friends and kinsfolk, who will predict all sorts of terrible results to your fits of temporary insanity. Happy are you if you escape with the preliminary disagreeables, which often give strength to moral convictions by rousing our latent combativeness, if only to show that we *can* think and act on our own responsibility!

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* Letter from a vegetarian to a lady who has resolved to try the Reformed Diet.

But this question of Reformed Diet seems to me so essentially the WOMAN'S QUESTION, that I rejoice to know of such an intelligent and resolute house-mother enlisted in the ranks of our Army of Progress. Some folks think I am crazed about diet; they used to laugh at my absurd notions, and prophesy a speedy return to the "comforts of life;" but I am seldom troubled about my "miserable fare," since I have not shown any appearance of the expected weakness, but have been able to throw off many physical discomforts in the shape of neuralgia, indigestion, etc., which, under the old style of dieting, were my daily companions. Now, the whole question is coming to the front, with an increasing and spreading interest from its commercial and social bearings, and we may expect the argument to be debated more publicly before long in every great centre of our teeming population.

But while this may be, you will require the whole strength of your convictions to withstand the temptations back to the "flesh-pots;" for with your social position and your many inherited and co-relative hindrances to our mode of living, you will find the ordeal no slight one, in spite of your courage and decision.

Your sensitiveness to all outside impressions, and your almost morbid consciousness, will give you many occasions to consider and re-consider whether the "game is worth the candle." But you will very soon have experienced the benefit of the new order of things, not only in your own person, but in your dear little ones, and this will be your best support. I am always tolerant of the confirmed habits of old folks,

but I do feel all the mother roused in me to see the unnatural life which is imposed upon the children, until it becomes for them also a second nature. Let them talk as they please about the difficulty of changing social habits and customs, and rejoice over their rump-steaks and fat sirloins, but don't tell me that the *children* either require or prefer such a gross and unnatural diet, to the simple luxuries of a vegetarian table. Only once have I met *young* children who turned from "rice and raisins" or jam-tart, or "roly-poly," and such like wholesome dishes, to cry for beef and mutton and bacon. But this was one case in a thousand, and easily explained from the confirmed habits of the family. You must, however, endeavour to provide against any such perverted tastes in the older children, by giving them a liberal *variety* of such fruits and dishes as have hitherto been an extra luxury, rather than a usual article of diet.

Much depends upon the motives which impel you to this new way of living; the unity of aim, in yourself, will support you when the novelty is gone, and the daily routine of catering for your little circle has become an irksome and monotonous duty. At least this will be made much easier and pleasanter, if you succeed in grounding your young people in the broader *principles* which underlie our *convictions* on the subject, and these will also give a firmer foundation to your future and ultimate success, as you yourself are able to accept and embody, in your own life, the rightness, the sweetness, and the humanity of our ideas. But I forget that you seek my help in carrying

out your ambitious reform. I must, therefore, give you some definite basis to work upon, until you become familiar enough with this *terra incognita* to find your own way.

First, there are your husband (whom you may be thankful is so thoroughly at one with you in this revolution), yourself, and six children, big and small, with two domestics, who, you say, "are willing to try." Now, don't you worry over the domestic question—that is more easily arranged than you fear. With my own servants, I have never had the slightest difficulty; but then, while engaging them, I say that *we* do not use flesh-meat of any kind, considering it *coarse* and *unwholesome* food, but that if they wish to have it, or ever feel the need of it, they must let me know to order it for their special use. At the same time, I give them to understand what Vegetarianism means,—generally, it is the first time they have heard the word; and there is a certain fascination about the "ism," that seems to have its own way of settling the difficulty. Anyway, I fancy that a good many new ideas come into their heads with this initiatory one, and the result is, that I have never yet found any girl averse to our habits, or who would at least *own* to any need or desire for a return to the butcher. Of course, you will give them a liberal supply of fruit, and share with them whatever new luxuries you introduce into your *ménu*. This unwonted diet, so different from the the monotonous round of what is commonly ordered for the kitchen, has a decided attraction to the unpampered domestic of middle-class life. I don't know how

it would suit "high life below stairs," but you are not likely to recruit your forces from that quarter.

But dismissing this fear as groundless, you will arrange for the family and servants as a *whole;* and by choosing what will suit the necessities of the various members, in regard to the temperament and occupation, rather than to social position, you will soon attain a degree of comfort in these matters unknown to the average household. And let a good deal of sympathy be given to your maidens, if you would expect any sympathy from them. If we do not descend to them, we cannot hope to bring them up to our level of thought and feeling. I wonder often if some mistresses ever really think that servants have anything but hands and feet and eyes, for really they would never be so inconsiderate about their social and family rights, if they could but understand that they are *women,* with like parts, passions, and instincts as their own. I do not wonder at the frequent complaints of servants' demands in regard to followers, nights out, Sundays, etc.; for their master's house is so seldom a home to these girls, that they pine for escape to a little change and excitement, just as much or more than the school-girl for a holiday after a long session of confinement and lessons. "All work and no play" is just as hurtful to Jill as to Jack; change and variety is necessary to the health of body and mind for servant as for mistress; and the unavoidable sameness of house-work tells on all more or less, and demands a little wholesome indulgence whenever it can be had. It is surprising how a few days of holiday-

time, now and again, allowing a girl to go home and renew the family relations, with the experience of the difference of a comfortable and well-ordered house, from the usual inconveniences of her early home, will remove any latent discontent and grumbling.

Well, the children are meanwhile waiting for breakfast, and hungry enough to enjoy the good things provided for them. What must these be? You say oatmeal porridge proves too *heating* for the youngsters, and yet it seems the most sensible food for growing bodies! Well you may try them with an equal mixture of OAT, WHEAT, and BARLEY meal, prepared in the usual way, and eaten with sweet milk (or buttermilk, if you can get it good). Finish with whole wheaten bread, and baked or steamed fruit—apples, prunes, raisins, or whatever you find convenient and seasonable.

The older ones may have in addition a little butter, cheese, eggs, or whatever is prepared for your own meal; but encourage the use of fruit rather than too much dairy produce, the over-use of which is one of the commonest mistakes into which vegetarians fall. I find, indeed, many of their recipes are spoiled by the large amount of butter and eggs which they use, rendering them more liable to indigestion and biliousness, than even by the moderate use of flesh-meat. It is quite astonishing how little thought is given to the *wholesomeness* of our diet, while so much care is bestowed on its preparation and appearance on the table. However, you must not imagine that I avoid the use of butter and eggs from any prejudice against these

useful articles of food; but only that I find it necessary to be cautious as to quantity. For your own breakfast you will have no trouble, as you make little change from your previous habits; and as you mean to continue for a time the occasional use of fish, you have only to leave out the ham, chop, or steak, which still seems indispensable in many families.

Leaving breakfast, and anticipating that your evening repast will not be changed, but improved, by the freer use of dried fruits, cooked fruits, or even fresh fruits, as may be preferred, we come to the more troublesome meal of the day.

DINNER, in most large families, is an acknowledged trial to the mother, even where she does not put a *hand* in its preparation. I have known many women —conscientiously considerate of their children's health, as well as of their husband's purse—who wore themselves into ill-health over this daily care. Beef and mutton, roast and boiled, hash and mince, seemed to accumulate on their brain, till they would forget what came last, and what must come next. And as for the thought wasted over the Sunday joint, and how to ring the changes on it, till the bones were thrown into the soup-pot—well, the less said about it the better, especially on a warm summer day, and with not too cool a larder!

Thank your stars you have escaped *this* nuisance, and all its conglomeration of odours, to me, more and more offensive, as my olfactory nerves recover their true use of warning me off all corruptive substances. Smell and taste are very closely allied, and what is

offensive to the one sense should be avoided by the other, till its true power is also restored. You will find both wonderfully sharpened after a few months on the purer diet, although this may not always seem a blessing.

You have procured several vegetarian cookery-books, but do not find the help you expected. Possibly this is from the immense variety you have to choose from, as much as your own scrupulous caution to be "just right."

Well, suppose I give you a sample of dinners for one week, and you will see which of the dishes are preferred and suitable.

Observe, that I am calculating upon your family, as a whole, leaving you to your own discretion with the children and servants.

Also, that I avoid the free use of eggs in more than one course—*i.e.*, you will see them in the savoury course, but not in the sweet course, or *vice versa.*

By the by, you must modify the use of liquid at meal-times, especially of *cold water*, cold milk, and of course, I need scarcely add, beer or such like beverages. You will find less liquid required with your new diet, in proportion to the amount of fresh fruit, and the abstinence from, or *moderate* use of, salt, sugar, and the usual condiments.

THIRST is a symptom of slow or weak digestion, resulting from an insufficient secretion of the various dissolvent fluids necessary to a healthful assimilation of our food; and where much salt is eaten, more fluid is called for, to neutralise its drying-up action; but the

continuous habit of drinking at meals, weakens the function of salivation, both in the mouth and in the stomach itself, which loses *tone;* and this may explain the cause of what many complain of, that "the more they drink the thirstier they are."

But your new study of gastronomy will be sure to lead you into the kindred study of physiology, so I only draw your attention to this point—of unnecessary drinking—as I know how unusual, but how beneficial it is, to accustom oneself *not to drink at all, while eating solid food.*

However, in cold weather, a little really *good soup* may begin the meal, with this advantage, that it warms the stomach—raises its temperature to the digesting point; and this is, in some cases of feeble or slow digestion, a decided saving of vital power. Soups are also a good medium for the various *vegetables*, preserving the most valuable qualities which are lost, as a rule, in the ordinary mode of preparation.

I enclose a paper on this subject, which will enlighten you as to the benefits of vegetable soups.*

Soups may be divided into two classes: thin soups, which one may drink, and thick soups which can only be supped. The former are in common use, as brown soups, clear soups, chicken soups, etc.; the latter are peculiar to French and Scotch cookery, and more akin to the "potages" of our better-taught neighbours. These potages, or thick substantial soups (broth is the term in Scotland, only it has gone out of fashion from

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* See Appendix.

the growing taste for more *genteel* cookery), are each in itself a sufficient dinner, and one of the best, in point of economy of labour, where this is desirable. But they must be carefully made, and thoroughly cooked, to bring out and blend the flavours of the various ingredients.

We owe much to the Vegetarian and Food Reform Societies for their indefatigable exertions in introducing to public notice, and bringing within reach of the very poorest, the wide selection of rich, light, and delicate cereals and pulse-foods, many of which were scarcely heard of, except as expensive luxuries, until the last few years.

Now, it is quite a "consideration" *which* we shall choose—so many are similar, and yet not *quite* alike in their constituents. This gives great room for *individual selection*, to suit individual tastes; and I have been amused to see the various preferences where very slight differences were observable to the uninitiated. But as I have already remarked, the dis-use of flesh-food renders the sense of taste particularly delicate; hence one danger to vegetarians of running to the extreme of over-refinement.

The popular idea is that we *require* to eat a much larger *quantity* of food, to make up for the absence of flesh; but this fallacy has perhaps arisen from an error on the part of some vegetarians, who forget that, while they have greater temptation to over-eat, partly from the increased pleasure in their food, and partly from the form in which they take it (too much spoon-meat and too little of the dry and solid, requiring

mastication) they, as all who eat to live, rather than live to eat, must consider how much (or how little) is *necessary*, and remember that all above that point is more or less injurious.

As a rule, we require one good, solid meal a day, and two lighter ones. Some may live on one meal a day, some two—some *seem* to require four or five meals; but much of this is the result of morbid action of one or more functions, and may, especially in children, be modified considerably, and with benefit to health and comfort.

But you will do well to study your family on this point, and avoid EXTREMES. Some digest slowly, and require a substantial meal, and seldom. Some again digest more quickly, and require lighter food and more frequent meals. Yet, man has such an accommodating nature that, with care and discrimination, new and improved habits may be the means of re-moulding his constitution, changing or modifying his natural temperament, re-building him with improved conditions physically, as with higher aspirations spiritually. For we hold, that with our purer diet, we are already opening our natures to the entrance of a more *humanising* spirit, which will lift us out of the mire of sensuality, by giving us more *power over ourselves.*

I think it was Mahomet who said, "If you have two pence, spend one upon flowers," and though I doubt if he would have been so lavish had he lived in our country and times, yet we may well imitate his intention, and try to have something fresh, and bright, and green, on our table, at every social meal. I look

upon the growing love of flowers for their own sake, not from ostentation or fashion's sake, as one of the most hopeful signs of the age. But like every good thing, its abuse comes with it, and brings discredit on a taste which is both wholesome and natural.

Especially in the home education of children (and servants who are children of a kind), do flowers and pets of all kinds, as kittens and birds, when kept in moderation, give a wonderful help in softening and humanising the most selfish, by drawing out the affections from their concealment. I remember having a servant who was a "perfect treasure" as a servant, but completely undeveloped in the natural affections of a woman for children and live pets of any kind. I liked and respected the girl, and thought I would experiment a bit. So I introduced a frisky little kitten one day, "to keep down the mice." For a few weeks, puss was evidently a nuisance, and barely tolerated within the kitchen door; but she soon purred and mewed her way right into her new mistress's heart; and now I began to fear the result of my imprudence in meddling with and rousing latent affections, as nothing was thought too good for "the cat's dinner," which would be kept warm in the oven till its owner returned from her constitutional; and many were the surmises made over any unusual absence. Yet the end was attained, in awakening the dormant love of young things generally; and birds and flowers were now alike cared for, and jealously guarded from pussy's greedy claws, while a gentler tone was observed in her voice when children were with her,

without the old irritation which had formerly characterised her manner.

I do pity young people who have been brought up without pets of one kind or another—it seems a necessity to some children's happiness, but *these* are sure to find favourites for themselves: it is the less impressionable, more stolid and phlegmatic natures who most need the drawing-out of their affections by the possession of some living, helpless, and *to-be-cared-for* pet. How well do I remember our first *calf*, and the fun we children used to have with it, till it grew big enough and fat enough for the butcher to come and turn it into *veal.* But oh, dear me! there was not one of us would touch a bit of flesh meat for months after our poor playmate had disappeared from our midst; and long after, our mother would be annoyed by our squeamishness, and our usual question at table—"Is it the calf?"

And the pigeons that we fed every day, do you suppose *we* would touch them, however nicely disguised they might be under the pie-crust? But then we were running wild in a big gooseberry garden, where we might "fill and fetch more," as we pleased. I fancy these early days laid a good foundation for vegetarianism with some of us, and without much trouble. Did you ever notice what an evident difference there is to many refined persons, when they are playfully invited to eat "a bit of this dead sheep," or calf, as it may be? The change from sheep into mutton, calf into veal, and ox into beef, seems to throw a veil of oblivion over the life that has been

spilled for our pleasure—certainly, as *we* know, *not* for our necessity—and the same dish which would "go quietly down" with most folks under its Norman appellative, would "pretty surely *speak back*" if offered under its Saxon name. A little girl was once sent to the butcher's to procure a piece of tender veal for her sick mother, and coming back, met her father, who, learning her successful errand, said—"But it's a bit of a dead calf you have there!" The poor child ran to her mother lamenting how she had been cheated, never dreaming that the veal and the calf were of the same genus, only the one was living and the other dead.

But you are already convinced on this point, and I have only digressed, from our Dinner, for the children's benefit; so, finally, I must give you one more caution, on their account as well as your own, to avoid the use of fresh (uncooked) fruit, unless it forms an occasional meal of itself, with or without some breadstuff. Fruit, as dessert, is often blamed, and sparingly used, for its supposed indigestibility; but either it has been sent down on the top of a sufficient or over-sufficient dinner, or, where the digestion is weak, there are already too many varieties of food to harmonise and work in peace in Nature's laboratory. The best time to eat fresh fruit is in the morning, or *before* a meal, when it gets the first choice of conditions.

"I always eat *my* supper at five in the morning," says one old friend, who has for years had his plate of fruit in this way, and would miss his oranges or pears, or whatever fruit is in season, more than his breakfast.

Keep a plateful of fruit always at hand where every one can reach it, and you will soon find the benefit in the improved health, lessened thirst, and genial contentment arising from good digestions.

Many vegetarian children almost live entirely upon raw fruit and "brown bread," and grow strong upon this purest of all diets. But it is *whole* wheaten bread, and not the poor "broken staff of life" which most children get to lean on. Did you ever rub the ripe ears of wheat in your hands, and blowing away the chaff, find the delicate little pearly grains with their transparent covering of bran? And did you ever taste any white flour bread that was half as nice as these same grains of wheat, with all their natural sweetness and *nuttiness* still untampered with? Well, now, after a little, when your palate recovers its power of discrimination between one delicate flavour and another, you will wonder how people ever came to the present folly of separating the very finest elements of the grain, and throwing them to the pigs. There was a great hue and cry got up in one of our large cities against the water supply, which was said to be deficient in *lime*, and therefore a chief cause of the prevalence of rickets, defective bones, etc., amongst the children of the poorer classes. But *all* the children, rich and poor, have the same water to drink, though all have not the same corrective elements of food. The truth may be more easily found in the now almost universal disuse of oatmeal, barley meal, and whole wheat meal in the dietary of the town populations. That which was a common necessary of life to the

poorest, has become a fashionable luxury to the richer classes, who, having tried the "fine loaf," and found it wanting in life-giving power, have re-discovered the bran to be a wholesome and indispensable element in their daily bread. But this is not all. The loaf of whole-wheat flour is sweeter, because it is made from "the finest and freshest of the wheat." It cannot be "doctored" with alum, or mixed up with "all sorts of flour," as it will not *rise* unless fresh and sweet. Then the white flour is literally a *dead* white; for it has the life or spirit killed out of it by over-milling—*crushed out of it*—leaving it tasteless and limp, till you add mechanical raising and mineral salt. Yet where was the need of salt to the wheat we rubbed in our hands, and made such sweet morsels of, that we were loth to part with them, but kept chewing and chewing at them till they were changed into "bird-lime"?

White bread is so dry and insipid, of itself, that nobody ever dreams of eating it without some kitchening—either butter, or preserves, or molasses; but whole-wheat bread seems sweet enough and satisfying enough, only it must be *pure and fresh.* Some families who have learned its virtue have adopted a hand-mill of their own, so as to secure the flour in the best condition; but this involves considerable extra labour, and may surely be unnecessary in a town like yours where are so many excellent bakeries.

A greater *demand* will be met with a sufficient *supply,* if only the demand is steady. Meanwhile, you may supplement your supply, by home-made girdle-scones of whole wheaten, or mixed flour. I find a

proportion of several grains gives a much richer bread than where only one is used. But, indeed, the bread question is a very broad one, which I trust some one, more conversant than I am with the special qualities of the various cereals, will take up before long. I am convinced that a BLEND of the various breadstuffs would give us an article, which would do away with very much of the present debility and craving for stimulants, which seem but the natural result of nervous exhaustion. Anyway, we may find, among them, tolerable substitutes for a number of the questionable items in our improved dietary.

Maize, maizena, semolina, hominy, and corn-flour, are already in common use; but few know the superiority of the first three of these preparations. Maizena gives a peculiar richness to puddings and cakes, and partakes of the properties of the yolks of eggs; but it must be used sparingly. Tapioca and sago are much like the whites of eggs, and may be occasionally used as good substitutes for these in your cookery. I use very little butter in my recipes; oil (cotton-seed oil) I find less injurious to the system as a whole; but even this must be, with *your* family, very sparingly employed *internally*.

I really don't think we are *made* to suit such oily food. The line, "My *head* with oil thou dost anoint," has run along with me ever since I learnt that old eastern pastoral; and I find no harm from the outward applications, as the body only takes in just as much as it needs; while, by a delicate stomach, oil is often rejected as unsuitable. We evidently require oil in

some form, but I do not find it necessary as food. For my own part, since I gave up the use of it as food in almost any internal form, I am gaining weight and strength; but the outward application is exceedingly healing and nourishing, enabling me to dispense with much extra underclothing, previously necessary. Your little girl, M——, would be much the better of having half-an-ounce rubbed in to her stomach, back, and head, about every second day, after her bath. You must do this yourself to ensure perfect absorption, which is seldom attained without the help of a warm SYMPATHETIC hand; but do not be fatigued when you rub in oil, or you will only exhaust yourself without benefiting your child. You must rub only when you have strength to spare.

I am glad you have gained so much confidence in your new study of Hydropathy. You will find quite a new world of thought opened up to you as you persevere in your work, as the "home physician," which every mother will be when woman takes her true place in the family; but that will not be till her present ideas of Rights and Duties have been very much enlarged, and woman learn SELF-RESPECT as the foundation of all true progress for her sex.

You will always find, as in the cases you mention, that Hydropathy, with proper diet and other healthful conditions, will affect a speedier *cure*, with less strain on the patient's vitality, and without any danger or unpleasantness to the other children, especially in infectious or contagious disorders. Certainly, in the first stages of any serious illness, it involves more labour

and watchfulness on the nurse's part; but you will not grudge that where the benefit is so permanent. I often think of water-treatment in connection with the text which speaks of "Truth cleansing the inward parts;" for water is the only true and thorough searcher of physical evil, and when applied with the discrimination which it requires, draws all impurity to the surface, whence we can wash it away.

Lying in the Turkish Bath one day lately, I could not help contrasting the philosophical science of hydropathic treatment with the old mechanical and empirical system of drugging and blistering, leeching and stimulating of the various functions; and then my thoughts went back to a sermon I had heard on "The blood which cleanseth;" and, as we never can altogether separate the physical from the spiritual, even in a Turkish Bath, I found my present condition—warmth stimulating and preparing me for the moisture—wonderfully suggestive of a new rendering of the grand central truth of Christianity—of Life—the Love of the Father sending the Son—Truth—to cleanse, and heal, and rebuild Humanity, by filling it with His own Spirit of Love and Truth, and regenerating it after His own image. But every one, according to his ability to receive. Some require cold hard douching, and others gentle, warm spraying; some want bracing, and others want softening and relaxing of their whole natures.

Now, with the water treatment there is as much variety as humanity with its every form of ills can possibly require, only, as with the spiritual water, it must be applied with discretion as well as zeal. It isn't like a

mere case of a whole pill or a half pill, and so many drops to follow—for you must study the conditions of your patient, and temper your applications to these conditions, varying them as he varies, cooling them as he is too hot, warming them as he is too cool—always studying his present comfort as the surest sign of improvement.

You mention your eldest girl as showing a growing dislike to school-work, and an evident desire to be more about the house than you think good for her. Now, she is just at the age when I would keep her from all set book lessons for at least a year, or even two. I have known so many young girls, ruined in health by close application to studies of these "indispensable (?) branches" of female education, at this period of their life, when a more active use of their physical powers would develop them as women, and even strengthen the very mental faculties, which are otherwise rendered useless! One girl, just your daughter's age, plead hard to be allowed to leave school and help in the house, and after a year of useful activity, went back to her classes with renewed vigour and redoubled earnestness. The time she had apparently lost was a period of rest to her brain, and of busy helpfulness to her mother, who found her own labours lightened by her daughter's loving hands and feet. I often meet with young ladies, who have left school and school life only to be an incubus to themselves and their friends. They may happen *not* to be enthusiastic upon art, or music, or even lawn tennis, and have read themselves stupid with "too much study;" life seems

a dull purposeless affair—one day follows the other in dragging style, while their young life is waiting, wearying for some change or novelty—they know not what. Of course, every girl is waiting her "coming man;" but while she waits and pretends not to care, why isn't she being got ready for him? Now, don't toss your head at the insinuation as unwomanly, improper, and so forth. You and I need not pretend to any such evasion of a subject which is in every woman's mind, and I fancy in every man's, if he has any real manhood in him. It is just this very shirking of the most serious question in a young woman's life, by mothers who *ought* to know all about their daughter's growing instincts and perfectly natural—therefore perfectly proper—desires, which underlies a a very great deal of the ignorant folly and aimless frivolity which these very mothers deplore.

The girl is kept close at head-work for seven to nine years, and then finds herself without any congenial occupation, and with any amount of leisure. The more naturally active she may be, the more need of an outlet. A few years of fashionable idleness, and she finds the day long and life a burden. She has been killing time with busy idleness; but instincts are awakening in her, and she wants a CENTRE around which to concentrate her quick-pulsing life.

"Why don't you help your mother with the housekeeping?" says some friend. "Oh, my mother is such a good housekeeper, she likes to see to everything herself. Positively I don't know how I could help her, I am so stupid over these things. I often wonder how mamma

has patience with all the worry and bother." "And how is the girl to do in her own house, should she ever be a wife and mother?" "Oh, she will learn," you say, "as we did." Just so; but can we not give her a few lessons from our dearly-bought experience, and so let her start with an advantage? Why need she repeat all our mistakes from the want of practice which she can have in her mother's house? Come, now, are you not afraid of losing your prestige and power if this little woman gets in her hand, and puts you aside as old-fashioned and unscientific in your ideas? For of course she has had lessons in COOKERY at her last school, though there was more of elaborate note-taking than of practice. There is, no doubt, a more wholesome spirit developing amongst our young people with regard to home duties; but it lies with the mother to foster and put under practice the scientific suggestions of the schools; or what has been learned is soon lost for want of *habits* of domestic economy.

Is it not Mr. Ruskin who advises every girl to do a certain portion of house-cleaning every day, to give her an idea of the pleasure of real work? But I would go farther and say that every woman (in middle-class life at least) ought to serve her apprenticeship in all the departments of home duty, that she may be able to train her servants, and know not only that work is well done, but that it is *justly* done. Many ladies, from sheer ignorance of *how long* a piece of work requires to do it thoroughly, are over-exacting and unreasonable. To prevent this ignorance on the part of the mistresses of the future, mothers must see it to be

their duty to train their daughters, *before* marriage, in all the various household requirements, of their probable position in life, and not send them from the parent nest with wings and feathers, but with no practical knowledge of how to fly without falling. Your eldest daughter is just wanting a good time with her mother at home, so don't insist on many lessons just at present, till her rested brain cries out for them; as she feels her ignorance, she will turn to the light with renewed desire for knowledge. Besides, what is education good for, if it leaves the practical side of our nature uncared for? Some girls are ambitious of University honours; so, why not let them work hard, and lose or win, what will be but a passing pleasure, if their necessary training has not also served to make them better wives and mothers? But the average girl shrinks from the concentration of her whole vitality upon what has little attraction to a domestic nature. What she studies with real interest are the branches connected with, or relative to, her home-loving tastes. Show her some practical benefit to those around her, and she will go in for it with enthusiasm; but abstractions she leaves, without regret, to the other sex to work out for her and themselves. I always think of men as the original workers who bring in their raw material to the women to make up for them; and the splendid picture of "the virtuous woman" illustrates this idea in the glowing language of King Lemuel's mother, who was apparently no believer in either shiftless or thriftless wives.

But now I have surely replied to all your "anxious

inquiries," and must conclude this rambling epistle, trusting you may find some help from its heterogeneous ingredients, and, with your usual good sense, be able to reduce them to order in your own mind, to lie till wanted.—Yours, etc.,

A. S. H.

(The reader will find at the end a list of dinner *menus* for one week.)

CHAPTER XIV.

BODILY RELIGION: A SERMON ON GOOD HEALTH.*

"GOOD health is physical religion;" and it is a saying worthy to be printed in golden letters. But good health being physical religion, it fully shares that indifference with which the human race regards things confessedly the most important. The neglect of the soul is the trite theme of all religious teachers; and next to their souls, there is nothing that people neglect so much as their bodies. Every person ought to be perfectly healthy, just as everybody ought to be perfectly religious; but, in point of fact, the greater part of mankind are so far from perfect moral or physical religion, that they cannot even form a conception of the blessing beyond them.

* Abridged from "The Chimney Corner." By Mrs. Harriet Beecher Stowe. London: Sampson Low, Son, & Marston.

The mass of good, well-meaning Christians are not yet advanced enough to guess at the change which a perfect fidelity to Christ's spirit and precepts would produce in them. And the majority of people who call themselves well, because they are not, at present, upon any particular doctor's list, are not within sight of what perfect health would be. That fulness of life, that vigorous tone, and that elastic cheerfulness, which make the mere fact of existence a luxury, that suppleness which carries one like a well-built boat over every wave of unfavourable chance,—these are attributes of the perfect health seldom enjoyed. We see them in young children, in animals, and now and then, but rarely, in some adult human being, who has preserved intact the religion of the body through all opposing influences. Perfect health supposes not a state of mere quiescence, but of positive enjoyment in living. See that little fellow, as his nurse turns him out in the morning, fresh from his bath, his hair newly curled, and his cheeks polished like apples. Every step is a spring or a dance; he runs, he laughs, he shouts, his face breaks into a thousand dimpling smiles at a word. His breakfast of plain bread and milk is swallowed with an eager and incredible delight,—it is *so good* that he stops to laugh or thump the table now and then, in expression of his ecstasy. All day long he runs, and frisks, and plays; and when at night the little head seeks the pillow, down go the eye-curtains, and sleep comes without a dream. In the morning, his first note is a laugh and a crow, as he sits up in his crib and tries to pull papa's eyes open with his fat

fingers. He is an embodied joy,—he is sunshine, and music, and laughter for all the house. With what a magnificent generosity does the Author of life endow a little mortal pilgrim in giving him at the outset of his career such a body as this! How miserable it is to look forward twenty years, when the same child, now grown a man, wakes in the morning with a dull, heavy head, the consequence of smoking and studying till twelve or one the night before; when he rises languidly to a late breakfast, and turns from this, and tries that,—wants a cutlet with sauce, to make eating possible; and then, with slow and plodding step, finds his way to his office and his books. Verily, the shades of the prison-house gather round the growing boy; for, surely, no one will deny that life often begins with health little less perfect than that of the angels.

But the man who habitually wakes sodden, headachy, and a little stupid, and who needs a cup of strong coffee, and various stimulating condiments, to coax his bodily system into something like fair working order, does not suppose he is out of health. He says, "Very well, I thank you," to your inquiries,—merely because he has entirely forgotten what good health is. He is well, not because of any particular pleasure in physical existence, but well, simply because he is not a subject for prescriptions. Yet there is no store of vitality, no buoyancy, no superabundant vigour, to resist the strain and pressure to which life puts him. A checked perspiration, a draught of air ill-timed, a crisis of perplexing business or care, and he is down with a bilious attack, or an influenza, and subject to

doctors' orders for an indefinite period. And, if the case be so with men, how is it with women? How many women have at maturity the keen appetite, the joyous love of life and motion, the elasticity and sense of physical delight in existence, that little children have? How many have any superabundance of vitality with which to meet the wear and strain of life? And yet they call themselves well.

But is it possible, in maturity, to have the joyful fulness of the life of childhood? Experience has shown that the delicious freshness of this dawning hour may be preserved even to midday, and may be brought back and restored after it has been for years a stranger. Nature, though a severe diciplinarian, is still, in many respects, most patient and easy to be entreated, and meets any repentant movement of her prodigal children with wonderful condescension. Take Bulwer's account of the first few weeks of his sojourn at Malvern, and you will read the story of an experience of pleasure which has surprised and delighted many a patient at a water-cure. The return to the great primitive elements of health—water, air, and simple food, with a regular system of exercise—has brought to many a jaded, weary, worn-down human being, the elastic spirits, the simple, eager appetite, the sound sleep of a little child. Hence, the rude huts and châlets of the peasant Priessnitz, were crowded with battered dukes and princesses, and notables of every degree, who came from the hot, enervating luxury, which had drained them of existence, to find a keener pleasure in peasants' bread under peasants' roofs than

in soft raiment and palaces. No arts of French cookery can possibly make anything taste so well to a feeble and palled appetite, as plain brown bread and milk taste to a hungry water-cure patient, fresh from bath and exercise.

If the water-cure had done nothing more than establish the fact that the glow and joyousness of early life are things which may be restored after having been once wasted, it would have done a good work. For if Nature is so forgiving to those who have once lost or have squandered her treasures, what may not be hoped for us if we can learn the art of *never* losing the first health of childhood? And though with us, who have passed to maturity, it may be too late for the full blessing, cannot something be done for the children who are yet to come after us to maintain it?

Why is the first health of childhood lost? Is it not that childhood is the only period of life in which bodily health is made a prominent object? Take our pretty boy, with cheeks like apples, who started in life with a hop, skip, and dance,—to whom laughter was like breathing, and who was enraptured with plain bread and milk,—how did he grow into the man who wakes so languid and dull, who wants strong coffee and sauce to make his breakfast go down? When and where did he drop the invaluable talisman that once made everything look brighter and taste better to him, however rude and simple, than now do the most elaborate combinations? What is the boy's history? Why, for the first seven years of his life his body is made of some account. It is watched, cared

for, dieted, disciplined, fed with fresh air, and left to grow and develop like a thrifty plant. But, from the time school education begins, the body is steadily ignored, and left to take care of itself.

The boy is made to sit six hours a day in a close, hot room, breathing impure air; putting the brain and the nervous system upon a constant strain, while the muscular system is repressed to an unnatural quiet. During the six hours, perhaps twenty minutes are allowed for all that play of the muscles which, up to this time, has been the constant habit of his life. After this, he is sent home with books, slate, and lessons, to occupy an hour or two more in preparing for the next day. In the whole of this time there is no effort to train the physical system by appropriate exercise. Something of the sort was attempted years ago in the infant schools, but soon given up; and now, from the time study first begins, the muscles are ignored in all primary schools. One of the first results is the loss of that animal vigour which formerly made the boy love motion for its own sake. Even in his leisure hours, he no longer leaps and runs as he used to; he learns to sit still, and by and by, sitting and lounging come to be the habit, and vigorous motion the exception. The education thus begun, goes on from primary to high school, from high school to college, from college through professional studies of law, medicine, or theology; with this steady contempt for the body, with no provision for its culture, training, or development; but rather a direct and evident provision for its deterioration and decay.

The want of suitable ventilation in school-rooms, lecture-rooms, offices, court-rooms, and vestries, where young students of law, medicine, and theology acquire their earlier practice, is something appalling. Of itself it would answer for men the question, why so many glad, active children, come to a middle life without joy—a life whose best estate is a sort of slow, plodding endurance. The despite which most men seem to feel for God's gift of fresh air, and their resolution to breathe as little of it as possible, could only come from a long course of habit, in which they have been accustomed to live without it. Let anyone notice the conduct of our people travelling in railroad cars. We will suppose that about half of them are what might be called well-educated people, who have learned in books, or otherwise, that the air breathed from the lungs is laden with impurities—that it is noxious and poisonous; and yet, travel with these people half a day, and you would suppose that they considered the external air as a poison created to injure them, and that the only course of safety lay in keeping the cars sealed, and breathing over and over the vapour from each others' lungs. If a person offers to raise a window, what frowns from all the neighbouring seats, especially from great rough-coated men, who always seem the first to be apprehensive! The request to "put down that window" is almost sure to follow a moment or two of fresh air. Rows of ventilators have been put in the tops of some of the cars, but conductors and passengers are both of one mind, that these are inlets of danger, and are often kept carefully closed.

The old rule to keep the head cool and the feet warm is precisely reversed. A stream of cold air is constantly circulating about the lower extremities. The most indigestible substances are generally sold at way-stations for the distress of the stomach. Rarely can a traveller obtain so innocent a thing as a plain good sandwich of bread and meat. The railroad cars are ventilated; the feet are kept warm by flat cases filled with hot water, and covered with carpet, and answering the double purpose of warming the feet and diffusing an agreeable temperature.

But churches, lecture-rooms, vestries, and buildings, devoted especially to the good of the soul, are equally witness of the mind's disdain of the body's needs, and the body's consequent revenge upon the soul. In how many of these places has the question of a thorough provision of fresh air been even considered? People would never think of bringing a thousand persons into a desert, and keeping them there, without making preparations to feed them. Bread and butter, potatoes and meat, must plainly be found for them; but a thousand human beings are put into a building to remain a given number of hours, and no one asks the question whether means exist for giving each one the quantum of fresh air needed for his circulation, and these thousand victims will consent to be slowly poisoned, gasping, sweating, getting red in the face, with confused and sleepy brains, while a minister with a yet redder face and a more oppressed brain struggles and wrestles, through the hot, seething vapours, to make clear to them the mysteries of faith,

while devout persons upbraid themselves, because they always feel stupid and sleepy in church. The proper ventilation of their churches would remove that spiritual deadness of which their prayers and hymns complain.

A certain rural church was somewhat famous for its picturesque Gothic architecture, and equally famous for its sleepy atmosphere, the rules of Gothic symmetry requiring very small windows, which could be only partially opened. Everybody was affected alike in this church; minister and people complained that it was like the enchanted ground in the Pilgrim's Progress. Do what they would, sleep was ever at their elbows; the blue, red, and green of the painted windows melted into a rainbow dimness of hazy confusion, and ere they were aware, they were off on a cloud to the land of dreams.

An energetic sister in the church borrowed the sexton's key one Saturday night, and went into the church and opened all the windows herself, and let them remain so for the night. The next day, everybody remarked the improved comfort of the church, and wondered what had produced the change.

Travellers often take possession of rooms, sleep in them all night without raising the window or opening the blinds, and leave them shut up for other travellers. The spare chamber of many dwellings seems to be a closed box, opened only for spring and fall cleaning; but for the rest of the time closed to the sun and the air of heaven. Thrifty country housekeepers often adopt the custom of making their beds on the instant

they are left, without airing the sheets and matresses; and a bed so made gradually becomes permeated with the insensible emanations of the human body, so as to be a corrupter of the atmosphere.

In a sitting-room, from five to ten persons will spend months of the year, with no other ventilation than that gained by the opening and shutting of doors. Is it any wonder that consumption every year sweeps away its thousands?—that people are suffering constant chronic ailments—neuralgia, nervous dyspepsia, and all the host of indefinite bad feelings that rob life of sweetness and flower and bloom?

A recent writer raises the inquiry, whether the community would not gain in health by the demolition of all dwelling-houses—that is, he suggests the question, whether the evils from foul air are not so great and so constant, that they countervail the advantages of shelter. Consumptive patients far gone have been known to be cured by long journeys, which have required them to be day and night in the open air. Sleep under the open heaven, even though the person be exposed to the various accidents of weather, has often proved a miraculous restorer after everything else had failed. But surely, if simple fresh air is so healing and preserving a thing, some means might be found to keep the air in a house just as pure and vigorous as it is outside.

Ventilation consists in two things—a perfect expulsion from the dwelling of all foul air breathed from the lungs, or arising from any other cause, and the constant supply of pure air.

There are parlours where plants cannot be made to live, because the gas kills them; and yet their occupants do not seem to reflect that an air in which a plant cannot live must be dangerous for a human being. The very clemency and long suffering of Nature to those who persistently violate her laws is one great cause why men are, physically speaking, such sinners as they are. If foul air poisoned at once and completely, we should have well-ventilated houses, whatever else we failed to have. But because people can go on for weeks, months, and years, breathing poisons, and slowly and imperceptibly lowering the tone of their vital powers, and yet be what they call "pretty well, I thank you," sermons on ventilation and fresh air go by them as an idle song.

One of Heaven's great hygienic teachers is now abroad in the world, giving lessons on health to the children of men. The cholera is like the angel whom God threatened to send as a leader to the rebellious Israelites. "Beware of him, obey his voice, and provoke him not; for he will not pardon your transgressions." The advent of this fearful messenger seems really to be made necessary by the contempt with which men treat the physical laws of their being. What a wiping-up and reforming and cleansing is going before him through Europe! At last we find that Nature is in earnest, and that her laws cannot be always ignored with impunity. Poisoned air is recognised at last as an evil—even although the poison cannot be weighed, measured, or tasted; and if all the precautions that men are now willing to take

could be made perpetual, the alarm would be a blessing to the world.

Like the principles of spiritual religion, the principles of physical religion are few and easy to be understood. An old medical apothegm personifies the hygienic forces as the Doctors Air, Diet, Exercise, and Quiet; and these four will be found, on reflection, to cover the whole ground of what is required to preserve human health. A human being whose lungs have always been nourished by pure air, whose stomach has been fed only by appropriate food, whose muscles have been systematically trained by appropriate exercises, and whose mind is kept tranquil by faith in God and a good conscience, has *perfect physical religion.* There is a line where physical religion must necessarily overlap spiritual religion and rest upon it. No human being can be assured of perfect health, through all the strain and wear and tear of such cares and such perplexities as life brings, without the rest of *faith in God.* An unsubmissive, unconfiding, unresigned soul will make vain the best hygienic treatment; and, on the contrary, the most saintly religious resolution and purpose may be defeated and vitiated by an habitual ignorance and disregard of the laws of the physical system.

Perfect spiritual religion cannot exist without perfect physical religion. Every flaw and defect in the bodily system is just so much taken from the spiritual vitality: we are commanded to glorify God, not simply in our spirits, but in our *bodies* and spirits. The only example of perfect manhood the world ever saw

impresses us more than anything else by an atmosphere of perfect healthiness. There is a calmness, a steadiness, in the character of Jesus, a naturalness in his evolution of the sublimest truths under the strain of the most absorbing and intense excitement, that could come only from the *one* perfectly trained and developed body, bearing as a pure and sacred shrine the One Perfect Spirit. Jesus of Nazareth, journeying on foot from city to city, always calm yet always fervent, always steady yet glowing with a white heat of sacred enthusiasm; able to walk and teach all day and afterwards to continue in prayer all night, with unshaken nerves, sedately patient, serenely reticent, perfectly self-controlled, walked the earth, the only man that perfectly glorified God in his body no less than in his spirit. It is worthy of remark that in choosing his disciples he chose plain men from the labouring classes, who had lived the most obediently to the simple, unperverted laws of nature. He chose men of good and pure bodies—simple, natural, child-like, healthy men—and baptized their souls with the inspiration of the Holy Spirit.

The hygienic bearings of the New Testament have never been sufficiently understood. The basis of them lies in the solemn declaration that our bodies are to be temples of the Holy Spirit, and that all abuse of them is of the nature of sacrilege. Reverence for the physical system, as the outward shrine and temple of the spiritual, is the peculiarity of the Christian religion. That body which God created as the soul's companion must necessarily be dear and

precious in the eyes of its Creator. Paul contrasts it with the brighter glory of what is to come: "He shall change our *vile* bodies, that they may be fashioned like his glorious body." Memoirs of good men are full of abuse of it, as the clog, the load, the burden—in short, one would think that the Creator had imitated the cruelty of some Oriental despots who have been known to chain a festering corpse to a living body. Accordingly, the memoirs of these pious men are also mournful records of slow suicide, wrought by the persistent neglect of the most necessary and important laws of the bodily system; and the body, outraged and down-trodden, has turned traitor to the soul, and played the adversary with fearful power. Who can tell the countless temptations to evil which flow in from a neglected, disordered, deranged nervous system—temptations to anger, to irritability, to selfishness, to every kind of sin of appetite and passion? No wonder that the poor soul longs for the hour of release from such a companion.

But that human body which God declares expressly was made to be the temple of the Holy Spirit, cannot be intended to be a clog and a hindrance to spiritual advancement. A perfect body, working in perfect tune and time, would open glimpses of happiness to the soul approaching the joys we hope for in heaven. It is only through the images of things which our *bodily* senses have taught us that we can form any conception of that future bliss; and the more perfect these senses, the more perfect our conceptions must be.

The conclusion of the whole matter, and the practi-

cal application of this sermon, is :—First, that all men set themselves to form the idea of what perfect health is, and resolve to realise it for themselves and their children. Second, that with a view to this they study the religion of the body, in such simple and popular treatises as those of George Combe, Dr. Dio Lewis, and others, and with simple and honest hearts practise what they there learn. Third, that the training of the bodily system should form a regular part of our common-school education — every common school being provided with a well-instructed teacher of gymnastics; and the growth and development of each pupil's body being as much noticed and marked as is now the growth of his mind. The same course should be continued in colleges and female seminaries, which should have professors of hygiene appointed to give thorough instruction concerning the laws of health.

And when this is all done, we may hope that crooked spines, pimpled faces, sallow complexions, stooping shoulders, and all other signs indicating an undeveloped physical vitality will, in the course of a few generations, disappear from the earth, and men will have bodies which will glorify God, their great Architect.

The soul of man has got as far as it can without the body. Religion herself stops and looks back, waiting for the body to overtake her. The soul's great enemy and hindrance can be made her best friend and most powerful help; and it is high time that this era were begun. We old sinners, who have lived carelessly, and almost spent our day of grace, may not gain much

of its good; but the children—shall there not be a more perfect day for them? Shall there not come a day when the little child, whom Christ set forth to his disciples as the type of the greatest in the kingdom of heaven, shall be the type no less of our physical than our spiritual advancement,—when men and women shall arise, keeping through long and happy lives the simple, unperverted appetites, the joyous freshness of spirit, the keen delight in mere existence, the dreamless sleep and happy waking of early childhood?

CHAPTER XV.

VOICES OF THE SAGES.*

THE examples and teachings of Scripture combine with the testimony of History in support of the same truths in respect to the proper food of man. Some of the ancients attained to great heights of knowledge and virtue by obedience to the voice of conscience, and without the knowledge we now possess, reached to exalted conceptions of the Great Being who rules the universe. The men who most distinguished themselves were those who adhered to plain diet and the laws of health. Homer, the oldest of the poets, described the wisdom of the choice of

* An abridgement of a pamphlet published some 40 years ago illustrative of Health principles, with quotations and examples from many sources in different ages.

Hercules in preferring labour and self-denial to the path of flowery ease. He also gave his testimony to the fact that milk and vegetable eaters were the longest lived and honestest of men. Pythagoras, Plato, Plutarch, Socrates, Epicurus, and the whole school of Grecian philosophers, as also many warriors and statesmen celebrated in history, were very strict in their simple diet, and used very little, if any, animal food.

There was an idea amongst the ancients that animal food was the original cause of all diseases. Hesiod says that before the time of Prometheus mankind was exempt from suffering; that they enjoyed a vigorous youth and old age; and that death, when at length it came, approached like sleep, and gently closed their eyes. The story of Prometheus is no doubt allegorical. He is said to have stolen fire from heaven, and for this crime was chained to Mount Caucasus, where a vulture continually devoured his liver, which grew to meet its hunger. It was the belief also that Prometheus first killed an ox.

Prometheus, who represents the human race, effected some great change in his nature, and applied fire to culinary purposes, thus screening from his sight the horrors of the dead carcass. From this moment his vitals were devoured by the vulture of disease: fire consumed his being in inducing disease and premature death. All vice arose from the ruin of healthful innocence.

"Then happiness
And science dawn, tho' late, upon the earth;
Peace cheers the mind, health renovates the frame;
Disease and pleasure cease to mingle here,

Reason and passion cease to combat there;
Whilst each unfettered o'er the earth extend
Their all-subduing energies, and wield
The sceptre of a vast dominion there;
Whilst every shape and mode of matter lends
Its force to the omnipotence of mind,
Which from its dark mine drags the gem of truth
To decorate its paradise of peace."—SHELLEY.

Well do these sentiments accord with the prophecies of Isaiah. The majority are, however, slow to learn, and prefer the enjoyment of their accustomed luxuries to that pure enjoyment which is felt by the temperate and the virtuous man. There is very little temperance where stimulants are indulged in as at present.

Lycurgus, the great Spartan law-giver, regulated the diet and habits of that republic on a frugal and temperate system. Rich and poor had a certain allowance of corn, and under this system they reached a hardihood of body, and a courage indomitable. Their deeds of valour have been recorded, and have been the admiration of all ages. For 500 years Sparta maintained its independence, producing many heroes remarkable for their valour, integrity, and love of country. We might all easily learn and practise the laws of health; but instead of doing so, we seek the means of indulging our appetites, and when sick, employ "doctors" to patch us up for another round of indulgence.

Sanitary measures are indeed adopted with the view of removing causes of ill-health, but the main, the primary cause, is unwholesome food and drink. A leading member of the Government lately proclaimed

that beer, which contains alcohol or poison, is "a prime necessary of life." I boldly assert that alcohol *is poison*, and that therefore beer, and all fermented liquors, are poisonous. By the light of science, the human mind had long since arrived at the conclusion that fermented liquors should not be used. In the reign of one of the Chinese Emperors, the origin, nature, and evil of intemperance were so well understood that the use of intoxicating liquors was denounced and prohibited; while in other reigns the vines were uprooted lest wine should be made; nor has grape-wine ever since been introduced among the Chinese people. By a Royal decree, "about eleven hundred years before Christ, a Chinese Emperor, at a solemn assembly of the states, forbade the use of wine, as the cause of so many evils which happen on earth."

Buddha, whose opinions were adopted by hundreds of millions of the human race, and who was really a wise and a good man, left this maxim to his followers:—"Obey the law, and walk steadily in the paths of purity, and drink not liquors that intoxicate or disturb the reason." The well known and interesting account by Xenophon of the youthful Cyrus, after pointing to the disturbing effect of wine on the bodily organs and mental faculties of the courtiers of King Astyages, designated it as *poison*. Among the Arabs, abstinence from intoxicating liquors was known before Mahommed; he only took up one of the great truths of human nature.

The expounder of the sacred books in the temple of Serapis has left the clearest testimony with regard

to the Egyptian priests :—"They gave up the whole of their lives to the contemplation and the worship of the Divine nature, and to Divine inspiration, procuring to themselves honour, security, and piety, but through contemplation and science. With respect to wine, they drank very little of it, on account *of its being injurious to the nerves, oppressive to the head, an impediment to invention, and an incentive to lust.*"

The old inhabitants of Italy perceived how that the great evil was in the earlier excitement of wine, rather than in the later narcotic effect.? Bayle well states the case :—"A person elevated with wine is inclined to transgress the laws of chastity, so it is also true that a drunk man destroys every feeling." Intoxicating wine was prohibited to the Italian women in the earlier ages, as also to all young men under thirty years of age. Hippocrates, one of the first physicians, saw the great cause of diseases arising from excess, and taught simplicity of diet, and proper attention to the exercise of the limbs and to cleanliness. He remarked, "that disease did not come upon us all at once, but was the result of slowly producing causes." Yet men, when they are ailing, speak of some immediate cause, and hope to get well by some remedy equally speedy; thus preventing themselves from looking to a steady establishment of health, while they run into numerous errors in seeking for cures from mysterious drugs.

Socrates, one of the wisest of the Greek philosophers, was strictly frugal. He had brought his appetite under such control that he never overstepped the bounds of moderation and temperance. He recom-

mended, and himself practised, "*entire abstinence from such articles of diet and luxury as stimulated them to eat when they were not hungry, and to drink when not thirsty.*" He was not only a philosopher; but in his early youth he distinguished himself by deeds of valour, and endurance of many hardships; his wisdom has become proverbial, and his heroic death showed that his courage endured to the last. His views of an Almighty Ruler were too pure for the religions and priests of his day: they accused him of denying the gods, and they condemned him to die by drinking poison; he was offered an escape, but he preferred obedience to the laws—drank the poison and died, discoursing on the certainty of future existence.

Epicurus, another philosopher, inscribed over his gates these words:—"Passenger! here thou wilt find good entertainment; it is here pleasure is esteemed the sovereign good. The master will receive thee courteously; but take note, thou must expect only a piece of cake and thy fill of water. *Here hunger is not provoked, but satisfied; thirst is not excited, but quenched.*" But science adds further insight into its truth. An unnatural appetite is created; any particular nerves being unnaturally excited, require the same stimulants renewed, and so the mischief increases. Dr. Beaumont says:—"Condiments of spices of any kind are non-essential to the process of digestion—they afford no nutrition. Though they may assist the action of a debilitated stomach for a time, their continual use never fails to produce debility of that organ. They affect it as alcohol or other stimulants do; the present

relief is afforded at the expense of future suffering." If the digestive organs be weak, and the body otherwise predisposed to disease, the effects of strong tea on the system is most injurious. That class of diseases commonly called nervous tremours, habitual depression of spirits, and all the miserable train of symptoms arising from laxity and debility, may frequently be ascribed to tea. Professor Liebig asserts, that "coffee, also, impedes the digestion of food for an hour or two." Sylvester Graham declares :—"There is no truth in science more perfectly demonstrable than that alcohol is one of the more energetic and fatal poisons known to man; and it can be proved that tea, coffee, tobacco, and opium, are poisons. How did our ancestors do without them? Tea was introduced for medicinal purposes. It was first used in Britain in 1666, and became a fashionable beverage at Court, owing to the example of Katherine, Queen of Charles II., who had been accustomed to it in Portugal. The practice of smoking, snuffing, and chewing tobacco, was introduced about the year 1586. It has increased and grown upon this intellectual and *Christian*, self-denying generation, who become *slaves* to the habit. It carries with it the curse of *slavery;* it enslaves him that takes, and him that provides. Man *abuses* God's blessing; he employs the earth to grow poisons, and converts the best fruits into poisons.

It was well-known, formerly, how injurious to the powers of the mind was the use of stimulants to the appetite. Plutarch was distinguished for his frugal mode of life, for his abilities, and his virtues; he was

educated where lessons of strict sobriety were taught, and great physical perfection attained. The teacher was well aware of the importance of keeping the head clear by temperance; and seeing that the scholars were not inclined to eat more than they could manage, without taking condiments to stimulate their appetites, he punished his own son as an example; and looking at the others who had transgressed, he told them the consequences of such indulgences in destroying their ability to learn. This was going to the root of the evil. It would be well if all teachers were to think more of the principle here inculcated; thus they might strengthen and keep the head clear for study. Plutarch's opinion on the eating of flesh is here clearly expressed. He says:—"It is best to accustom ourselves to eat no flesh at all, for the earth affords plenty of things, not only fit for nourishment, but for enjoyment and delight." And again:—"You ask me for what reason Pythagoras abstained from eating flesh? I am astonished to think on the contrary, what first induced man to taste of a dead carcass, or what motive could suggest the notion of nourishing himself on the flesh of animals, which he saw the moment before bleating, walking, and looking about them. How could he bear to see an impotent and defenceless creature slaughtered and cut up for food? How could he endure the sight of the convulsed limbs and muscles? How bear the smell arising from dissection? How was he not disgusted when he came to handle the bleeding flesh, and clear away the blood from the wounds? We should rather wonder at the conduct

of those who first indulged in this repast, than at such as have humanely abstained from it."

The Brahmins of India, and the Essenes among the Jews, held similar doctrines to the Pythagoreans. Their diet, which was simple and natural, ensured good health, and they attained to a great age. Some of the Brahmins even considered that *ill-health* was a *disgrace*, being a certain sign of transgression against the laws of temperance. The testimony of Josephus to the Essenes is—"They offer no sacrifice, because they have more pure lustrations in living well, and they addict themselves to husbandry. They exceed all other men in purity of life and virtue, and this is righteousness; and indeed to such a degree, that as it hath never been excelled by other men, neither Greek nor barbarians, it hath endured a long while among them. They are long lived also. Many of them survive above 100 years, by means of the simplicity of their diet, and the regular course of their lives." It is said that Jesus was an Essene. John the Baptist certainly was, and the prophets were all chosen from the Nazarites, men of pure diet, and total abstainers from wine. The luxurious rulers of the Roman Empire would have refused Christianity, combined, as it was, with the simple habits of the early Christians, had not the priests mystified and darkened Christ's truths, and made him appear to license error. The wines recommended or used by Christ and the apostles were the unfermented fruit of the vine, as proved by Dr. F. R. Lees, otherwise He would be leading us into that temptation which He taught us to pray against.

We must, like the prodigal son, kneel down before God and say, Father, we have sinned.

All men should aim at perfection, and the physical conditions must not be neglected. The law of nature is the law of God. In tracing the effects of diet on individuals and on nations, we are but opening the leaves of the works of the Creator; we must not shut our eyes to facts, for by them He teaches us. The dissertation of Hippocrates, on ancient medicine, serves to show that at the time he lived, the mind had been drawn to these subjects, and to the quantities required by different temperaments and habits for preservation of health. The early history of the Egyptians supplies many facts that prove these people to have been most rigid observers of temperance, and that both the quantity and quality of what was either eaten or drunk were prescribed by laws which extended even to the king; and there is little doubt that the practice of eating in common, and by prescribed rules which was introduced by Minos into Crete, and by Lucurgus into Laconia, took their origin from Egypt. Whether the Egyptians learned from Moses, or Moses from Egypt, it is hard to determine; but the most ancient heathen authorities agree with the Jewish legislator, and it is quite possible that he was the fountain-head of those principles of legislation, and that the Egyptians imitated him; for after the departure of the Israelites, and the wonders witnessed in their flight, the Egyptians must have been deeply impressed with the power which saved them, and been inclined to look up to them for knowledge. Josephus, in his letters against Apion,

proves that the Jewish nation and their laws were known to the Grecians, and they were represented to be Egyptians who had separated from their country, and gone to Jerusalem. The Egyptians, not being able to conceal the wisdom and power of Moses, spoke of him as one of the priests of the temple of Heliopolis, thus claiming the fame of his deeds for their priesthood. There was a period of 500 years between the time of Moses and the time Greeks visited Egypt. Moses flourished 1570 years before Christ; Homer wrote about 1000 years before Christ; Lycurgus 900 years; Pythagoras 550 years, and Hippocrates 460 years before Christ. Josephus says:—"Our legislator is the most ancient of all legislators, as for the Solons, and all those legislators which are so much admired by the Greeks, they seem to be of yesterday, compared with Moses. The multitude were governed by wise maxims, and by the injunction of their king. But for our legislator, he exhibited himself to the people as their best governor and counsellor, and included in his legislation the entire conduct of their lives, and prevailed with them to receive his laws, and most carefully observe them. The reason is this, that Moses did not make religion part of virtue, but he ordained other virtues to be part of religion: I mean justice, fortitude, and temperance, and a universal agreement of the members of the community with one another; for all our actions and all our words have a reference to piety towards God: there are two ways of coming at any sort of learning, and a moral conduct of life. The one is by instruction of words, the other by practi-

cal exercises. Thus did the Lacedemonians teach by practical exercises, but not by words. But for our legislator he very carefully joined these two methods of instruction together, nor did he permit the hearing of the law to proceed without the exercise for practice; *but beginning immediately from the earliest* [teaching the young from the experience of age, as the home circle and our schools give opportunity of doing] *the appointment of every one's diet;* accordingly he made a fixed rule of law, what *sort of food they should abstain from, and what sort they should make use of*, as also what communion with others, etc., that we might be guilty of no sin, neither voluntary nor out of ignorance." "To sum up," he says, "Our laws have been such, as have inspired admiration and imitation. The earliest Grecian philosophers, though they observed the laws of their own countries, yet did they in their actions and their philosophic doctrines, follow our legislator, and instructed men to live sparingly, and to have friendly communication one with another. Our custom of resting on the Sabbath, and our fasts, and many of our prohibitions as to food, are observed, while they also endeavour to imitate our mutual concord with one another, and the charitable distribution of our goods, and our diligence in our trades, and our fortitude in undergoing distresses. Our law prevails by its own force, and as God himself pervades the world, so doth our law also."

Josephus thus defended the Jewish law, and his testimony should be received. Many other facts prove that the Jews went amongst foreign nations, and carried

their strict habits with them, which rendered them more able to take part in the affairs of the world. Notwithstanding the disobedience and punishment of the Jewish nation, there must have been always many individuals who followed the law in all its integrity. We might take up their principle of temperance, and with the aid of science and experience, establish it in still greater perfection.

I would show you the result of following Nature's path, as pointed out by the great Creator. I will cite examples from those men whom choice or circumstances induced to follow a temperate course, and who lived in health and strength, and mostly with virtue and wisdom. In some no mention is made of the nature of their food, but all will tend to prove that under favourable circumstances man may live with perfect enjoyment of his faculties to one hundred years and upwards.

A very remarkable collection, in regard to the duration of life in the time of Vespasian, is presented by Pliny from the records of the census. It there appears that in the year 76 of our era there were living in that part of Italy between the Appenines and the Po, 124 men who had attained to the age of 100 and upwards: viz., 51 of 100; 57 of 110; 2 of 125; 4 of 130; 4 of 132; 3 of 140. Besides these, there were living in Parma 5 men, 3 of 120, and 2 of 130; and in a small town near Placentia there were 10 men, 6 of 110, and 4 were 120 years of age. In all these cases we learn that the habits of the Italians in the country were very simple in their food.

Democritus, a searcher of nature, and a simple liver, was a man of good temper and serene mind; he lived in good health 109 years.

Zeno, the founder of the Stoical sect, was most abstemious, and lived on bread and fruits; he attained the age of 98 years, and was never in ill health.

Poleman, of Athens, in his youth led a life of folly and drunkenness; but when about thirty years of age, he entered the school of Zenocrates in a state of intoxication; he was so struck with the eloquence and force of his arguments, that he renounced his dissipated habits, and drinking no other beverage than water, he became himself a teacher, and died at an extreme old age.

Francis Secardia Hongo died A.D. 1702, aged 114 years. He left behind him forty-nine children; was never sick in his life; his sight, memory, and agility were the surprise of those who knew him. At 110 he lost all his teeth, but he cut two large ones in his upper jaw the year before he died. He never used strong drink or tobacco; his only drink water, and his habits in other respects were temperate.

In the year 1792, died in Holstein, an industrious day-labourer named Stender, in his 103rd year. His food for the most part was oatmeal and buttermilk. He rarely ever ate flesh, and could not be put out of temper. He had the greatest trust in Providence; his chief dependence was in the goodness of God.

Anthony Senish, a farmer in Limoges, died in 1770, in the 111th year of his age; he laboured until fourteen days of his death. His teeth and hair remained,

and his sight had not failed him; his usual food was chestnuts and corn. He had never been bled or used medicine.

Died in June, 1838, at Bybrook, Mrs. Letitia Cox, upwards of 160 years of age. She had never drank anything but water during her whole life; as did also another woman at Holland Estate, who died eighteen months before, at the age of 140.

Lewis Cornaro, a Venetian nobleman, died at Padua in 1565, at above 100 years of age. In early life he had been very intemperate, and greatly diseased: from his thirty-fifth to his fortieth year his life was a burden to him. By a regular way of living he established his health, and in his eighty-first year says:—"I am free from apprehension of disease or death, because I have nothing in my constitution for a disease to feed upon, because I have spent a life of reason; I know that, barring accident, no violent disease can touch me. I must be dissolved by a gentle and natural decay like oil in a lamp which affords no longer life to a dying taper."

Richard Lloyd died near Montgomery, aged 132 years. He was a tall, strong, and upright man; had no grey hairs, had lost none of his teeth, and could see to read without spectacles. His food was bread, cheese, and butter for the most part, and his drink whey, buttermilk, or water; but being persuaded by a neighbouring gentleman to eat flesh meat and drink malt liquor, he soon fell off and died.

Dr. Lowes speaks of a man in the north, aged 120, who had been accustomed to eat very little animal

food, but lived upon oatmeal porridge and potatoes, and a little milk, and never remembered being sick.

Dr. E. Baynard speaks of one John Baily, of Northampton, whom he visited, then living in his 129th year. He had a strong voice, and spake very loud, and told the Doctor he had buried the whole town, except three or four, twenty times over. "Strong drink," quoth the old man, "*kills 'em all.*" His drink was water, milk, and small beer; and his food for the most part brown bread and cheese. He cared not for flesh meats.

Louis Wholeham, of Ballimona, Cork, died at the age of 118 years. He had not lost a tooth, nor had one grey hair. His diet through life was mostly potatoes and milk. It is a remarkable fact, showing how we cling to life, that he declared on his death-bed he should have been more resigned to die eighty years ago than he was then.

Jane Heath, of America, was being exhibited in several large towns at the age of 162, and when asked what was her food, said—"Corn, bread, and potatoes is what I eat."

Francisco Lupats Olia, of Smyrna, lived 113 years. He drank nothing but water and milk, and ate bread and figs. He could hear well, and see without spectacles even to the last.

William Dupe died at Oxford, September 23, 1843, aged 95 years. His eldest surviving child was 60 years of age; the youngest, an infant, *two* years old. Up to a very recent period, he exhibited no marked appearance of either mental or bodily decay; and at

Christmas 1842, he addressed a meeting at a temperance festival.

Thomas Garrick, of the county of Fife, was in possession of great vigour; he died in 1837, being then 151 years of age. For twenty years he had never been confined to his bed.

A Scotch newspaper, in 1839, notices an old woman, then living in Glasgow, who was 130 years of age, and for 50 years had not taken intoxicating drinks. Her grandfather died at the age of 129; her father at 120—they were both very temperate.

In the year 1757, J. Effingham died in Cornwall, in the 144th year of his age. He never drank liquors, seldom ate flesh, and lived remarkably temperate. Till his 100th year, he scarcely knew what sickness was, and eight days before his death he walked three miles.

The Countess of Desmond lived to the age of 145, and preserved her faculties nearly to the last. Upon the ruin of the house of Desmond, she was obliged, at the age of 140, to travel to London, from Bristol, to solicit relief from the Court, being reduced to poverty. Lord Bacon says she renewed her teeth twice or thrice.

Thomas Parr, of Shropshire, maintained himself by day-labour (which would be better for those to be so employed who are deceiving the public by what they call "Parr's Life Pills," but which, like most others, are *death* pills). When about 120, he married a widow for his second wife. Till his 130th year, he performed his usual work. Some years before his death, his eyes

and memory began to fail, but his hearing and senses continued sound to the last. In his 152nd year he was taken to Court, when he only lived nine months, in consequence of the change in his mode of living. When his body was opened by Dr. Harvey, his bowels were found to be in the most perfect state. He died merely of a plethora, occasioned by living too high. Parr's greatgrandson died a few years ago at Cork, aged 103.

In the year 1670, died Henry Jenkins, aged 169; his monument is in the church of Bolton-upon-Swale, Yorkshire. When he was above the age of 100, he could swim across rapid rivers. His food was for the most part coarse.

Extract from the memoirs of the life of Thomas Tryon, late of London, merchant, printed 1705:—"I read books of physic, and several other natural sciences and arts, and thus spending my time at hard labour in the day, and great part of the night in study. I arrived to near twenty-three years of age, about which time the blessed day-star of the Lord began to rise and shine in my heart and soul, and the voice of wisdom continually and most powerfully called upon me for separation and self-denial; and through His great mercy I was enabled to obey, retrenching many vanities, and flying all intemperance; for then I betook myself to water only for drink, and forbore eating any kind of fish or flesh, and confining myself to an abstemious and self-denying life; my drink being only water, and food only bread and fruit, and that but once a-day, for some time. This strict life I continued

for a year and more; but through the temptations of the evil genius, and persuasion of acquaintance, I fell to eat flesh, and drink strong drink again, but not immoderately, and continued so doing about half a year, in which time I was often checked and troubled for my revolt, and fell into an indisposition of body. The voice of wisdom and my good genius still called upon me, prompting me to return to my abstemious way of living, and I no sooner obeyed but I was restored to my perfect health; and if any say, Why all this singularity, that it is ridiculous, and what advantage found you in it? To this I answer, that I found this abstemious way of living mightily to fit and qualify me for the contemplation of our great Creator, and of His wonderful works in nature; for by thoroughly cleansing the outward court of the terrestrial nature, and thereby raising the power of the outward senses at the same time, as it were, it opens the window of the inward senses of the soul, so that they become clear sighted, and can discern and distinguish between the good and evil principles; there is a blessed union and harmonious correspondency amongst all the properties of the soul; and when this state is experienced and witnessed unto, there is as it were a new heaven and a new earth; new senses and a new understanding. These are the blessed fruits of adhering to the voice of wisdom in separation and self-denial, for they are the only inlets to all true knowledge, whether it be of God, nature, or ourselves; and it ought to be a man's chief pleasure to set his light on the top of a hill, that all may receive the benefit of it if they will,

for God makes men His instruments to do His own work: and I cannot but give my own testimony that in this kind of separation and self-denial, I have found greater benefit and satisfaction than I can express in words, the spirit of wisdom being wonderfully strengthened thereby, the mind illuminated, and the body and soul fitted and prepared to be what they were intended to be (the sacred temples of the Sun of Righteousness, the fountain of light and love), which enlightens the spirit of understanding, keeping it vigorous and lively; and he that continually presses on in good works, in self-denial, abstinence, temperance, and an innocent life, will have more and more understanding bestowed upon him, as I myself (though altogether unworthy) can in some measure witness, to the praise and the glory of the wonderful Creator and Father of light and wisdom. Some may cavil, and say, that to eat nothing but bread and gruel, or the like, and drink altogether water, will not sustain nature in strength and vigour. To which I can truly say, that I never found them fail, but on the contrary was rather more nimble, brisk, easy, and lightsome, as it were, like the volatile troops of the aerial regions, feeling a most pleasant alacrity through the whole body. I found myself likewise more fit for meditation and the contemplation of divine and natural things; for abstemiousness and clean living makes the spirit of wisdom powerful in operation, and gives such full joy and satisfaction to the observers thereof, that they are, as it were, upon all occasions forced to speak of the excellence and great benefit of self-denial, cleanness, and temperance."

Tryon was a shepherd boy, self-educated. He apprenticed himself in London, performed his daily labour, studied, became a successful trader, travelled, brought up a family, and while proceeding diligently with his worldly affairs, wrote several works for the benefit of humanity. The following are his reflections on the study of man :—"Who can consider the riches of his own nature, and the wonderful properties and faculties thereof? Who can consider these, or any of these things, as he ought, and have any time to spare? Or who that has any eyes to see can find any pleasure like what the contemplation of those things affords to the discerning mind, especially the consideration of human nature? For man, being the image of God, is an epitome of the whole creation. Let him look where he will, he still sees something that participates in some measure of his nature, for as man participates of the nature of all things, so all things participate of his. The knowledge of a *man's self* is a key to all other knowledge."

The Rev. John Wesley is said to have tasted no flesh for the last forty years of his life. In his "Life," printed from his private papers and printed works, are the following particulars of his diet:—He practised temperance to the utmost, and began early in life to leave off flesh and wine; that being part of his system of temperance, he probably continued it, although it is not particularly stated, except in one instance, that he made it a principle to abstain from flesh; but as to wine and fermented liquors, it was part of his religion to abstain from them, and to preach abstinence to

others. On his journey out to America with his brother Charles, he wrote in his memoranda—"Believing that denying ourselves in the smallest instance might, by the blessing of God, be helpful to us, we wholly left off the use of flesh and wine, and confined ourselves to vegetable food, chiefly rice and biscuits."

The temperance of Mr. Wesley was extraordinary. When at college, he carried it so far that his friends thought him blameable. Among other things he was remarkable in the article of sleep. "Healthy men," says he, "require six hours." He never could sleep on a soft bed; he always rose early; his constitution was excellent, and never was a constitution less abused, less spared, or more excellently applied in subservience to the faculties of the mind. In short, the transactions of his life could never have been performed without the utmost exertion of two qualities, which depended not on his capacity, but on the uniform steadiness of his resolution. These were—*inflexible temperance, and unexampled economy of time. In these he was a pattern to all ages,* and an example to what a surprising extent a man may be useful to his generation by temperance and punctuality.

Another account of his life states—"He observed so rigid a temperance, and allowed himself so little repose, that he seemed to be above the infirmities of nature, and to act independent of the earthly tenement he occupied. The figure of Mr. Wesley was remarkable. His stature was low; his habit of body the reverse of corpulent, and expressive of strict temperance and continual exercise; and, notwithstanding his

small size, his step was firm, and his appearance, till within a few years of his death, vigorous and muscular. In his countenance and demeanour there was a cheerfulness mixed with gravity—a sprightliness, which was the natural result of an unusual flow of spirits, and yet was accompanied with every mark of tranquillity."

In his eighty-fifth year, he made the following observations on his birth-day:—"What cause have I to bless God as for a thousand spiritual blessings, so for bodily blessings also! How little have I suffered yet by the rust of numerous years! It is true I am not so agile as I was in time past; I do not run or walk so fast as I did. I find no decay in my hearing, smell, taste, or appetite (though I want but a third part of the food I once did); nor do I feel any such thing as weariness either in travelling or preaching. To what cause can I impute this, that I am as I am? First, doubtless to the power of God fitting me for the work to which I am called. May we not impute it also as inferior means?—1st, to my constant exercise and change of air; 2nd, to my never having lost a night's sleep, sick or well, by land or by sea; 3rd, to my having constantly, for above sixty years, risen at four in the morning; 4th, to my constantly preaching for above fifty years; 5th, to my having had so little pain in my life, and so little sorrow or anxious care." Mr. Wesley did not mention in this review of his own habits his temperance. He was apt rather to refer to supernatural causes, and his allusion to preaching gives that impression; but can we be blind to the fact, that it was principally through this important habit of

temperance that Mr. Wesley was enabled to establish his virtues, his endurance, and his piety? It was as necessary a foundation for his mission as for that of the prophets of old. He was from his youth inspired with this principle, and it became so much a habit as hardly to be noticed by himself.

John Wesley on one occasion, being invited to dine with some of his preachers at a wealthy gentleman's table, on entering the dining-room one of the ministers began in undertones to condemn such extravagance, as the profusion of rich food on the table gave evidence of. But Mr. Wesley gently tapped him on the shoulder and quietly said—"Brother So-and-So, here is an excellent opportunity for the exercise of self-denial;" which virtue, we are sure, he himself took advantage of. Whether his brother did so or not is not recorded: let us judge *ourselves.*

The celebrated philanthropist, John Howard, in an extract from his memoranda made towards the end of his life, says:—"I am firmly persuaded that as to the health of our bodies, herbs and fruits will sustain nature in every respect far beyond the best flesh meat. The Lord planted a garden for mankind in the beginning, and replenished it with all manner of fruit and herbs. If these still had been the food of man, he would not have contracted so many diseases in his body, nor cruel vices in his soul. The taste of most sorts of flesh is disagreeable to those who for any time abstain from it, and none can be competent judges of what I say but those who have made trial of it." Another important testimony is obtained from

him of the effect of those means to preserve himself from contagion. The effects of diet are now even better understood through the vegetarian doctrines; and as far as could be ascertained, there was not either in England or America a single case of death by cholera among those who avoided the flesh diet; and in America some vegetarians were much exposed to the danger of infection.

In truth Howard appeared to bear a charmed life; whatsoever the danger into which he entered in the cause of the wretched, he came out unscathed for many years. God was about his footsteps, and did not fail him in his hour of need. The secondary reasons [or physical causes] for his impunity are well worth considering. Howard ate no flesh, drank no wine nor spirits, bathed in cold water daily, ate little, retired to bed early, and rose early. This regimen enabled him to penetrate safely dungeons, into which gaolers and physicians even dared not follow him. The question of how he preserved himself from contagion being often pressed upon him, he replied, "Next to the goodness and mercy of the Author of my being, *temperance* and *cleanliness* are my preservatives. Trusting in Divine Providence, and believing myself in the way of my duty, I visit the most noxious cells, and while thus employed I fear no evil." After the numerous escapes which he could only have gone through by his temperate course, he nevertheless fell a victim to fever, caught in attending a severe case. Howard had one habit which in some measure unnerved him—this was drinking tea; but the dangers

he is known to have passed through, are a sufficient testimony to the efficacy of his temperate regimen.

Among modern philosophers we have numerous testimonies in favour of simple diet:—Newton, Milton, Franklin, and even Byron. Many literary and scientific characters also, who have lived for years on fruit and farinaceous substances. Therefore, whilst the majority still cling to their indulgences, and suffer numerous ills, we confidently assert that, from the beginning up to the present time—

> "Heard are the voices of the sages,
> The times and the ages."

Shelley the poet, Mr. Newton, Dr. Cheyne, Dr. Lambe, and Sylvester Graham were the pioneers in this country of a return to this pure system, the advantages of which they experienced and taught. There are now many Vegetarians who can give personal testimony to the advantages of the system; and both in England and America it is practised to a great extent by those who value health and long life more than the feasting and drinking which destroys health and stupefies the mind.

At Saint-Just-de-Clair, in the province of Isere, France, there lives a woman who has attained to an almost incredible age. She was born in the month of March, 1761, and is now in her 124th year. She enjoys perfect health, and has no infirmity whatever. She speaks distinctly, retains her appetite, and sleeps in tranquillity. Her baptismal name is Marie Durand, and she is known as the Widow Girand. The certificates of her birth and baptism still exist, and have

been extracted from the parish registers of Saint-Just-de-Clair. She was married in 1779 to a farrier in Saint-Just, and has had two children—one of whom died a few years ago at the age of 87. After she became a widow in 1788, she quitted her birth-place to follow the fortunes of a recruiting sergeant, whom she married, and became cantineer in his regiment. She passed through the wars of the Republic and the Empire with her second husband. "I have heard the thunder of the cannon, I have seen the tide of battle rolling, I have crossed many a stormy sea," she tells her visitors with complacence, "but I cannot remember these things." Her second husband was slain at Waterloo, where she also assisted, and she succeeded in returning to Saint-Just in 1815. The widow relates with tears her terrible experience on the field of battle where her husband fell; and octogenarians still recall the emotion with which she told her tale at that time. On her return to Saint-Just the old widow opened a tavern near the city walls, which was much frequented by the heroes of the Republic and the Empire. She was in the habit of waiting upon her guests personally until she was ninety years of age; but after this time she retired to a little mansion in the neighbourhood, where she was regarded with veneration by all in her vicinity, who strove how far they could be of service to her. The poor widow, though her skin is parched and withered like that of a mummy, is nevertheless always smiling and pleasant to all. The greatest treat which she can enjoy is to drink a basin of milk containing a little

drop of cognac in the morning; and every evening she partakes of the soup which her neighbours provide in turns. The inhabitants of Pont-en-Noyan have tried repeatedly to take her away from her mansion at Saint-Just, but they have never been able to accomplish their purpose. The people of Saint-Just regard her as an idol, and would massacre any who dared to remove her.

M. Chevreul, the veteran chemist and Director of the Gobelins Manufactory, though he has reached the age of 98, has so strongly objected being placed on the retired list that the order has been rescinded. M. Chevreul is a tremendous worker; he does not care about wine, and never takes it; he is spare in his diet, takes but two meals a day, and devotes a quarter of an hour to each. "I am very old," it is reported that he said ten years ago, "and must not waste time in eating."

There has lately died at Benares an old lady who was in many respects one of the most remarkable personages in Northern India. This was Anna, widow of General James Kennedy, of the Bengal Cavalry. She was in her 97th year, having been born in 1787, and she lived to see no fewer than 176 lineal descendants, of whom 128 survive her. She had eighteen children, eighty grandchildren, seventy-three great-grandchildren, and five great-great-grandchildren. Her father, husband, two sons, one son-in-law, and four grandsons have been generals in the army, and her descendants include many military officers of lower rank. As a notice of her, which has appeared in a

leading Indian paper puts it, her life has set at defiance all well-established medical theories. She was married at fifteen, had 18 children, was never out of India a single day, spent all her life in the plains, except once, when she paid a brief visit to the hills, the climate of which disagreed with her. Her husband died a quarter of a century ago, at the ripe age of eighty-two, after fifty-five years of married life. For nearly forty years she has been the centre of society at Benares, where she has been as popular amongst the natives as amongst Europeans. She was proud of her activity of mind and body, which remained unimpaired almost up to the last; and it is said of her that, whenever the Maharajah of Benares, who was one of her intimate friends, paid her a visit, she never failed to offer him, on leaving, the assistance of her arm, though he was thirty years her junior.

Colonel George L. Perkins, of Norwich, who celebrates on Sunday the ninety-sixth anniversary of his birthday, recently declined an invitation to attend the anniversary of the bombardment of Stonington by the British in 1812. His excuse was not feebleness, but that he could not leave his business. His business is that of Treasurer of the Norwich and Worcester railroad, of which he was one of the incorporators in 1836. Colonel Perkins has never formed the acquaintance of sickness. He is probably one of the halest men in this State. His form, 6 feet in height, is as straight as a young pine; his face is ruddy and almost unwrinkled, and his clear, blue eyes, are as strong as any man's. In manner he is a thorough gentleman of the past.

In his office he does as much work as the middle-aged boys, his assistants. The Colonel generally rides home to his dinner, and if the omnibus gets the start of him, he runs and overtakes it. No omnibus horses in Norwich can outrun him. In his pew in the Park Congregational Church he reads the morning Scripture lesson after the pastor without glasses. Col. Perkins was paymaster in the war of 1812 for Connecticut, Rhode Island, and a part of Massachusetts. By the act of Congress some years ago, he drew his back pension since 1812, which amounted to about 900 dols. He continues to draw his pension yearly. The Colonel has an inexhaustible memory. He vividly recalls every important event in this part of the States since the beginning of the century. Colonel Perkins figured as a witness in the Beecher trial. As his stately figure passed through the court-room audience, and he took the witness stand, he looked like a well-preserved man of 65 years. As he confronted the audience, an attorney inquired his age. The witness announced it with a quiet smile. The lawyers looked in astonishment, and the people laughed their incredulity. Probably not a person in the room believed the statement. The Colonel enjoyed the incident immensely.—*New York Times (1883).*

If England can celebrate the hundredth birthday of Sir Moses Montefiore, America can boast of a man who was "eighteen years old when Sir Moses was born, and is at the present day without an infirmity." Robert Gibson, the venerable gentleman in question, who was on the threshold of manhood when Sir Moses

lay in his cradle, is described as rather small in size, but extremely active; and though now in his hundred and nineteenth year, he is able to walk about, dress himself, and attend to an ordinary man's occupation without help. He used to be a great whisky drinker, but that was when the present century was in its infancy. Finding spirits was spoiling a splendid constitution, he gave up the bottle, became a teetotaler, and for the last seventy years has taken neither wine nor spirits. . . . Robert Gibson, who has papers to prove that he saw the light in the year 1766, has been twice married, and can gather round him, with children, grand-children, and great-grand-children, 150 direct descendants.

An article in the *Westminster Review* for April, after noticing the formation of the Vegetarian Society, says, "What with these confederated enemies of orthodoxy in diet, and what with those terrible Bible Christians, and what with the unregistered reformers sprinkled through society, and what with nobody knows how many sceptics and considerers, it is not to be doubted that Smithfield and all butchers, Billingsgate and the whole guild of fishmongers, Gore-house and every cook (to say nothing of farmers' wives, licensed sportsmen, and poulterers), stand in jeopardy of their very existence as such. In one word, to speak seriously, it can no longer be concealed that Vegetarianism is now an embodied power, be it for good or for evil, among the elements of British and American civilisation. It may look fantastical—it may be feeble—but it is certainly alive; if it is but a puny and

supernumerary sort of thing, it is also very young, and it cannot be denied that it is able to boast of as ancient and honourable ancestry as any in the world." It is proved that the highest testimony, the most ancient and most accredited, gives to man the corn and fruits of the earth; while, on the other hand, it denounces our blood-eating, wine-drinking habits, as the cause of premature disease and death.

This vital frame, this wondrous work of God, must be better known and cared for; no one should despise his life. Our examples show that it is possible to live in health, and also that it is possible to restore a broken constitution. If we but succeed in drawing forth the enthusiasm of the public towards so great, so desirable an object as true Temperance, this country will, under Providence, be the means of laying the foundation for the Millennium.

The modern wise man says a good joint of beef and a pint of wine make the man, and he cannot give up his meat and drink. No; he would rather die. We have, nevertheless, some hopes of him, if we can but make it fashionable to avoid these abominations. The wise man declares it can never be done: "Why," says he, "you would make us a nation of milksops—mere vegetators?" To this we answer, that the pure diet will increase the moral courage, the mental vigour, the bodily strength. It is not only philosophers and poets and agriculturists who have proved it, but warriors, and patriot defenders of their hearths, have all acted under its influence.

We begin the national testimonies with an instance

from our own history. When Boadicea, Queen of the Ancient Britons, was about to engage the Romans in a pitched battle in the days of Roman degeneracy, she encouraged her army in an eloquent speech, in which she says:—"The great advantage that we have over them is, that they cannot like us bear hunger, thirst, heat, or cold; they must have fine bread, wine, and warm houses; to us every herb and fruit are food; every juice is our oil, and every stream of water our wine." "In those times," says Lord Kames, "our fathers were robust both in mind and body, and could bear without pain what would totally overwhelm us."

"The victories of the Arabs after Mahomet, who in a few years, from a small and mean beginning, established a larger empire than that of Rome, are an example of the great vigour accompanying simple diet. They were enthusiasts. The naked Arab was found an overmatch for a troop of Roman cavalry: the women fought like men, and conquered; they were temperance troops; there was neither brandy nor flesh to corrupt them. [We learn, too, much from the present war in Egypt regarding the Arabs, in following the same system, both in feeding and fighting.] They conquered Asia, Africa, and Spain on barley. The Caliph Omar's walking-stick struck more terror into those who saw it than another man's sword. His diet was barley-bread; his drink was water. When he left Medina to go to the conquest of Jerusalem, he rode on a red camel, with a wooden platter hanging at his saddle, with a bottle of water and two sacks, one holding barley, and the other dried fruits. And there will

dawn ere long on our politics, and on our modes of living, a nobler morning than that of the Arabian faith. Scripture, history, science, and experience will not bear testimony in vain. This great overgrown dead Christendom of ours will arise in its true and original grandeur of love to God and man, and will triumph over selfish Animalism.

"Cyrus, who raised Persia from an obscure, rude colony to one of the most splendid empires that the world ever saw—who performed more extraordinary marches, fought more battles, won more victories, and exhibited more personal prowess and power of endurance, than almost any other general that ever lived, subsisted from childhood on the simplest of vegetable food and water; and the Persian soldiers who went with him through all his career of conquest, and shared with all his hardships, toils, and dangers, and on whom he always placed his main dependance in battle, and with whom he was able to march thousands of miles in an incredibly short space of time, and conquer armies double the number of his own, were fed like himself from childhood on bread, cresses, and water; and adhered to the same simplicity of diet throughout the whole of their heroic course, without relaxing from the severity of their abstemiousness, even in the hour of victory, when the luxuries of the captured cities lay in profusion around them."

Were not these samples of moral and physical courage and endurance superior to any beef-given, wine-produced valour?

In the most heroic days of the Grecian army,

their food was the plain and simple produce of the soil. The immortal Spartans of Thermopylæ were from infancy nourished by vegetable diet; and the Roman army also, in the period of their greatest valour and most gigantic achievements, subsisted on plain vegetable food."

"Very few nations in the world," says a sagacious historian, "produce better soldiers than the Russians. They will endure the greatest fatigues and sufferings with patience and calmness; and it is well known that the Russian soldiers are from childhood nourished by fish and vegetable diet. It is well known also that amongst the bravest and most enduring soldiers of Napoleon Bonaparte, in his wonderful career of carnage and conquest, were those who had all their lives subsisted on a vegetable diet."

"The Polish and Hungarian peasants from the Carpathian mountains," says a young Polish nobleman, "are among the most active and powerful men in the world; they live almost entirely on oatmeal, bread, and potatoes. The Polish soldiers under Napoleon Bonaparte would march forty miles in a day, and fight a pitched battle, and the next morning be fresh and vigorous for further duties."

"In 1823, General Valdez, a Peruvian general, marched to Lima with an army of native Indians, expecting to find General Santa Cruz with the patriot army there; but learning that the army were advancing at a considerable distance, he resolved to meet them by forced marches. He selected two or three thousand men, and ordered them to leave their women and all

unnecessary baggage, and every man to fill his pockets with parched corn for food. He then led his army 750 miles in eleven days, or more than sixty-eight miles per day; and, at the close of this forced march, met and routed the patriot army of between three and four thousand men."

"These Peruvians," says a highly intelligent gentleman, who has spent twenty years among them, "are a more hardy race, and will endure more fatigue and privation than any other people in the world. They subsist wholly on vegetable food, and being very improvident, their diet is generally coarse and scanty. Parched corn is their principal article of food, when engaged in any particular enterprise requiring great activity and power of body. In travelling, and in many other respects, the women are quite equal to the men in muscular power and agility."

But, says the mind, "Convinced against its will, and of the same opinion still," it might suit the Peruvians, but it won't suit our climate. But we have cited Russia and Poland, cold countries.

Again, we come to our own country. "Brindley, the celebrated canal engineer, informs us that in the various works in which he has been engaged, where the workmen, being paid by the piece, each exerted himself to earn as much as possible—men from North Lancashire and Yorkshire, who adhered to their customary diet of oat-cake and hasty pudding, with water for their drink, sustained more labour, and made greater wages than those who lived on bread, cheese, bacon, and beer, the general diet of the labourer of the south."

Diet is more important than climate, for the natives of Sierra Leone, whose climate is said to be the worst on earth, are very temperate, and subsist entirely on boiled rice, with fruit, and drink cold water, in consequence of which they are strong and healthy, and live as long as men in the most propitious climates.

In judging loosely of the health of nations according to their habits, people are too apt to overlook many of the other disturbing causes. It is often the case, that the effects of a proper diet are destroyed by the use of stimulants and narcotics, now become so common in all nations. Graham asserts, after a most careful comparison, that under similar circumstances a man must sustain more health, life-power, and strength of body and mind on a well-selected vegetable diet, than on a mixed or animal diet; and we have not the least doubt that men of wealth and of leisure, who can choose their occupations, if they made it their study to obey the laws of health in diet, are in a situation very advantageous for the attainment of longevity, so as to live as long, or perhaps longer, than others whose healths are more tried by forced circumstances. Men rarely live in the fashionable world without entailing on themselves many ailments and infirmities; and wherever stimulants and narcotics are indulged in, disease is increased and life shortened; whereas, with constant abstemious habits, men may live to a great age without disease.

" Before the discovery of the Ladrone Islands by the Spaniards, in 1620, the inhabitants imagined themselves the only people in the world, and they

were destitute of almost everything that people in civil life think necessary to existence. There were no animals on the islands. They had never seen fire, nor could they at first imagine the properties or the use of it. Their food consisted of fruits and roots in a natural state. They were well-formed, vigorous, active, and could carry with ease upon their shoulders a weight of five hundred pounds. Disease or sickness of any kind was scarcely known amongst them, and they generally lived to a great age. It was no extraordinary thing for individuals among them to reach 100 years without experiencing any sickness. Since they have become accustomed to the use of fire, and have deviated from their former abstemious mode of living, diseases are much more common among them, and they do not live to so great an age." This is an illustration of the ideas of the ancients conveyed in the fable of Prometheus.

Captain Cook tells us that when he first visited the New Zealanders, he found them enjoying perfect health. Among the numbers which crowded round the voyagers, they never observed a single person who appeared to have a bodily complaint; if wounded or hurt, their wounds healed with facility. Numbers of aged men were observed amongst them, yet none of them were decrepit, and although they did not equal the young in muscular strength, they were not behind them in regard to cheerfulness and vivacity.

Dr. Lamb says, "There is every reason to believe, from the observations of the navigators of the Pacific Ocean, that those races of men who admit into their

nutriment a large proportion of fruit and vegetable matter, unchanged by culinary art, have the largest body, of the most perfect proportions and beauty: that they have the greatest strength and agility, and enjoy the best health."

"The interesting natives of Pitcairn's Island, who sprung from the mutineers of his Britannic Majesty's ship 'Bounty,' strikingly illustrate the principle before us. Yams, cocoa nuts, and roots, with bananas and plantains, form their principal food. With this simple diet, early rising, and taking a great deal of exercise, they are subject to few diseases; and Captain Beechy says they are certainly a finer and more athletic race than is usually found among the families of mankind. The young men were finely formed, athletic, and handsome; their countenances open and pleasing, indicating much benevolence and goodness of heart. But the young women, particularly, were objects of attraction, being tall, robust, and beautifully formed; their faces beaming with smiles, and indicating unruffled good humour. Their teeth are beautifully white and perfectly regular, without a single exception. A young girl, with a basket of yams on her shoulders, skipped from rock to rock like a young roe. The agility and strength of the men were so great, say the British officers, that the stoutest and most expert of the English sailors were no match for them in wrestling and boxing."

Such portions of the human family as subsist on vegetable food, without narcotic and intoxicating stimulants, have always been noted for their cheerful-

ness, vivacity, activity, gracefulness, and urbanity, for their suppleness and beauty of form.

Is not this condition worth striving for, instead of multiplying diseases and reducing the state of bodily perfection? Is it not a sin to bring up the young to early destruction, and to cause many to live a life of suffering, and to dull their minds, so that they cannot have a knowledge of their high destiny? The experiment might be tried in some of the charitable institutions in England with advantage.

The effects upon the young were strikingly illustrated in the Orphan Asylum of Albany, State of New York. "One hundred and thirty children," says Mr. Graham in his "Science of Human Life," "were, in 1833, changed from a diet which included flesh or flesh soup once a day to a pure vegetable diet, regulated by physiological principles. Three years after this change was made, the principal teacher of the institution thus speaks of it: 'The effect of the new regimen on the intellectual powers of the children has been too striking and too obvious to be doubted. There has been a great increase in their mental activity and power; the quickness and acumen of their perception, the vigour of their apprehension, and the power of their attention daily astonished me. Indeed, they seem eagerly to grasp with understanding minds almost any subject that I am capable of presenting to them in language adapted to their years.' Their usual supply of bread was made of the whole-meal; but on one occasion those who provided for the Asylum, not being aware of the necessity of their having brown

flour, gave them bread made from fine wheat flour, and in a little time symptoms of failing health appeared; on returning to the whole-meal bread their health was restored." Sound health requires bread made from the whole-meal.

It has been asserted by Buffon, that if man were to abstain from animal food, he would not multiply. To a mind accustomed to look beyond his circle this is an absurdity. We have the Irish, who live nearly upon potatoes, as an example to the contrary; and the eastern nations, proverbially prolific, are another example. On the opposite side, in Patagonia, whose inhabitants are most flesh-eating, and where every other advantage of air, climate, and active habits would tend to make them prolific, the reverse is the fact; and in a country which they have inhabited for 300 years, and is capable of containing millions, only 800 were in existence in 1837.

When, from religious or other motives, any society of men are induced to adopt, and perseveringly to observe, a strictly temperate regimen, their bodily health and longevity are much increased, as also their virtue and piety. In our own times, the religious society of the Quakers has been an example. They were founded by George Fox about the middle of the seventeenth century, on principles of the greatest simplicity, as well in regard to diet and manners as dress and religion, and for some generations they adhered to simple habits of diet. The consequence was, that in the course of three four generations the effects, in relation to health and longevity, became too remark-

able to escape general notice. But the dietetic habits of this society, being adopted from purely religious motives, were not regulated with reference to physiological effects, yet such were the important results of simplicity and temperance.

As a consequence of their temperance, one-half of those who are born in that society live to the age of 47 years; whereas, says Dr. Price, of the general population of London, one-half live only two years and nine months. Among the Quakers, one in ten arrives at 70 years of age: of the general population of London, only one in forty reaches that period of life Other statistics confirm the fact of the wonderful effect of the temperance habits of the Quakers.

Many of the examples tend to show that nations and individuals are more inclined to virtue and morality, and to the exercise of their intellect, when living on simple diet. The ancient philosophers, it will be observed, particularly recommended their mode of living in reference to its effect on the mind and morals. Phrenology was not known, and of course we cannot obtain from former experience any proof of the dependence which the growth of the brain has to the food; yet from observations since made, we may fairly conclude that it is through the brain that the mind and character are influenced; the lower regions of the brain being excited by stimulating food, and the higher regions, the seat of the moral faculties, being deadened and weakened. A striking example has lately been brought to light by Signor Cubi e Soler, of Barcelona, an extensive traveller. He says, if we

could find a savage race of men who were so far flesh-eaters as even to consume their fellow-beings, with scarcely any development in the moral and intellectual regions of the head, and another race of savages who lived exclusively on vegetables, who possessed moral and intellectual regions of the head highly or immensely developed, we should then possess scientifically the most positive and conclusive proof that Vegetarianism was designed by the Almighty. The two instances that approach to this contrast are the Araucanians, an Indian race of Chili, and the Caribs of Venezuela; the comparison being more valuable from the fact of both these races being found in South America, and both having maintained their primitive habits and manners for a series of generations. The heads of the Caribs are quite flat, whereas the Araucanians have a considerable rise on the top of the head, and a good development on the moral regions; and the mental characteristics of each bear out the conclusions of their outward form.

The Caribs consider themselves a privileged race, and hold all other Indians in sovereign contempt. They are relentless, enterprising, and ardent, regarding war and hunting as the chief end of their existence, and they devour such of their enemies as fall into their hands without remorse. The Araucanians, on the other hand, with some of the vices common to all savage nations, possess many noble qualities. They are generous and humane towards the vanquished; courteous, hospitable, benevolent, grateful, enthusiastic lovers of liberty, ever ready to sacrifice their lives in

the service of their country, the independence of which they have defended with indomitable courage. Possessed of great strength, neither the infirmities of age nor the symptoms of decay appear until they are far advanced in life. They are cleanly in their habits, and they subsist chiefly on grain, pulse, and potatoes. They acknowledge a Superior Being, whom they believe to be attended by inferior deities to execute his behests.

Mr. O. S. Fowler, the phrenologist, writes thus:—"I consider as established, both by analogy and by physical demonstration, that the exercise of particular mental faculties causes the exercise of and consequent enlargement of particular portions of the brain, and of course an increase of the skull above them, so that the strength of particular mental faculties can be determined by the size of the cerebral organs, and the size of these organs by the form of the skull; and as the stimulating food excites the lower organs, they become active and grow, while the moral regions remain dormant and decrease; on the other hand, with purely nutritious food, the moral regions become active, and the brain and outward conformation increase." Thus, however good a development of brain a man may have by nature, it is deteriorated by physical errors.

Sylvester Graham observes:—"Admitting all that phrenology claims in regard to cerebral organisation, it is still true that the intellectual and moral character of man can only be constitutionally reached through the medium of the nerves of organic life; or in other words, it is only by a proper attention to the physio-

logical laws of the domain of organic life that we can justly hope to have such an effect on the shape and condition of the brain and other parts of the body as will secure health, wisdom, virtue, and happiness to the human race."

If you would save your souls, take care of your bodies, not by pampering low appetites, but by acting up to laws which experience has proved to be beneficial. Among the warnings which offended nature gives to many of their departure from her laws, are the increasing number of sufferers from the toothache; the immense manufacture of artificial teeth by dentists for the afflicted, are a proof to how great an extent the mischief exists. We will agree with this sentiment of Sylvester Graham: "That it is entirely from the voluntary transgressions of mankind, and not from the want of benevolence in our Creator that we suffer toothache." There are various causes for this disease of the nerves and the teeth: hot food, narcotics, stimulants, and flesh diet. With a diet consisting of nourishing vegetable food and water, the teeth have remained sound, as we have seen in men who lived to 150 years of age. The notion that sugar injures teeth is incorrect, except where by its admixture with other substances it causes indigestion. That the eating of sugar spoils the colour of and corrupts the teeth is a mistake, for no people on the earth have finer teeth than the negroes in the West Indies. In the Egyptian mummies and in skeletons dug up in various countries and in England, the remains of those who had lived on more simple diet, the teeth are observed to be

perfect. In Mèxico, where the higher classes consume great quantities of flesh, they are noted for the early decay of their teeth and for nervous complaints; whereas the Indians residing in the same locality, but who live on vegetable produce, are remarkable for fine white teeth, and for their mild expression of countenance. A medical gentleman who spent 15 years in one of the remote counties of the State of Maine, where the inhabitants subsisted on a plain, simple, and coarse diet, stated that the people were very remarkable for their fine, white, and regular teeth; and although he was the only professional man in the country, he finally left it because he found no business. It is a common assertion, repeated by the general class of reasoners, that comparative anatomy proves us by nature to be omnivorous, but it is demonstrated that we are frugivorous animals, nearest the simiœ or monkey tribe. The celebrated naturalist Linnæus, speaking of fruit, says:—"This species of food is that which is most suitable to man; which is evinced by the series of quadrupeds: analogy—the structure of the mouth, of the stomach, and the hands."

Wherefore, I repeat, that from the primal institution of our nature, the teeth were destined to the mastication not of flesh but of fruits.

Baron Cuvier, whose knowledge of comparative anatomy was most profound, and whose authority is conclusive, thus writes:—"Fruits, roots, and the succulent part of vegetables, appear to be the natural food of man. His hands afford him facility in gathering them, and his short and comparative weak jaws, his

canine teeth not passing beyond the common line of the others, and the tuberculous teeth, would not permit him either to feed on herbage or devour flesh, unless those aliments were previously prepared by culinary processes."

Lord Monboddo says ;—"Though I think that man has from nature the capacity of living either by *prey* or upon the fruits of the earth, it appears to me that in his original state he is a frugivorous animal, and that he only becomes an animal of *prey* by acquired habit."

Upon all grounds, then, we conclude that the corn and fruits and roots of the earth and pure water are the natural sustenance of man, and the testimonies all prove that the practice of temperance in that diet has produced health and long life, strength, hilarity, morality, and intellectuality. It is equally effective in restoring as in maintaining health. Graham says: —"I have seen hundreds of miserable dyspeptics who had suffered severely for years: scores of those whose symptoms strongly indicated pulmonary consumption, and sometimes even its advanced stages; many who had for years been afflicted with epileptic and other kinds of fits and spasmodic affections, or with cruel asthma or sick headache; in short, I have seen nearly every form of chronic disease with which the human body is afflicted in civilised life, after resisting every kind of medical treatment for months and years, yield in a very short time to a correct diet and well-regulated regimen. And why was all this? Because in almost every case the diseases had been

originated and *perpetuated* by dietetic errors; and the practitioners had been unsuccessful in curing, because with all their administration of medicine, they had suffered those dietetic errors to remain unquestioned, nay, even recommended." He further observes—"That when individuals who have lived to sixty or seventy years on a mixed diet of animal and vegetable food, adopt a pure vegetable diet and good general regimen, they always improve in health, throw off many if not all their infirmities, and retrieve much of the vivacity and activity of early life."

Dr. Cheyne, who flourished about 100 years ago, says:—"For those who are extremely broken down with chronic disease, I have found no other relief than a total abstinence from all animal food, and from all sorts of strong and fermented liquors. In about thirty years' practice, in which I have in some degree or other advised this method in proper cases, I have had but two cases in whose total recovery I have been mistaken; and they were too deeply diseased and too far gone for recovery before I undertook them."

Dr. Lamb, after long and extensive practice, speaks most decidedly against the use of animal food in any kind of chronic disease: "I have seen multitudes of chronic diseases of every name and type, which had long withstood medical treatment of every kind, yield in some instances immediately, and some in the course of a few weeks or months, to a pure vegetable diet and general regimen on physiological principles."

Dr. J. Knight, of Truro, says: "Three years previous to my forming a determination to subsist upon

farinacea, I had been labouring under dyspepsia, and for six months previous also under an attack of acute rheumatism. I was harassed with constant constipation of the bowels, and ejection of blood after eating, together with occasional pain in the head. From 1831 to 1836, my diet consisted of rye and Indian bread, stale flour bread, without shortening, milk, and ripe fruit. During this time, while I devoted myself to considerable laborious practice and hard study, there was no deficiency of muscular strength or mental energy; my mind was never so active or strong." Dr. Knight has several times tried a diet of animal food, which in each instance was attended with such symptoms as to induce him to desist. He adds, "I am now satisfied to all intents and purposes that mankind would live longer, and enjoy more perfectly a sound mind in a sound body, should they never taste flesh meat." Drs. Cook, Ball, Alcott, and other doctors, give similar testimony, and other physiologists, homœopathists, and hydropathists, give us hopes that the tide is turning in the affairs of men, and that the laws of health will again be understood and obeyed as of old.

We are now very far gone in the round of indulgence, and are lost in the mystery of disease or iniquity, and death is victorious. "Where the carcass is, there the eagles gather round." Behold the multitude of quacks which gather round the haunts of men, and live on corruption—these are sure signs of the prevalence of error! There is no end to their inventions: and the evils to which drugs reduce mankind. And why?

Because men foolishly trust in the science, or rather trade of medicine, instead of the laws of nature; and physicians, guided by fashion and custom, have too often forgotten or concealed the laws of nature in the mystery of disease.

Dr. James Johnson says: "I declare my honest conviction, founded on long observation and reflection, that if there was not a physician, surgeon, man-midwife, chemist, or druggist on the earth, there would be less sickness or mortality than now obtains."

Dr. Trueman, in his work on food, says: "No disease can be cured by drugs without injury to the health; for the remedies employed for that purpose always cause some excessive and unnatural action of the body which lessens its power. The administration of drugs goes on the principle of administering a lesser evil to avoid a greater."

Radcliffe said: "On entering my profession, I thought I knew a hundred remedies for every disease: now, alas! at the close of my career, I leave a hundred diseases without a remedy."

What was the testimony of Baillie, in his day the acknowledged monarch of practice? In the prospect of going to render up his great account, he said: "He had no faith in medicines whatever; he neither knew their manner of action, nor the principles which should regulate their administration."

The celebrated Dr. Gregory declares that "More than ninety-nine parts in a hundred of all that has been written on the theory and practice of medicine, for more than one thousand years, is absolutely useless

and worthy to be known but as a matter of curiosity, or a miserable warning and example of the worst errors to which we are prone."

The celebrated Sydenham is reported to have said, when on his death-bed, and surrounded by physicians who were lamenting his loss to the world: "Never mind; I leave three good physicians behind me." They crowded over him with eager looks, each hoping his name would be pronounced. He remained for some time silent, then said: "Yes, I shall leave three very good physicians—air, exercise, and diet." Nature's healers.

Let physicians be true to their profession. Let them study the duties they owe to the communities with whom they live; let them teach the means of *preserving* health as well as of combating disease; and let the public also show that such is the duty required of them; and not as now, pay them for the amount of medicine given, or for each abstruse prescription.

Contrast the testimony of those who have had the courage to follow nature's cure with the conclusions of the scientific men who have tried medicine; contrast the comparative certainty of health, when men live on pure food, with the uncertainty which prevails around us, and you must be convinced that health is within your reach if you have courage to take the right course. If living witnesses will be of any avail, they are not wanting. There are numerous individuals who have formed Vegetarian Societies, who can testify to the benefits derived from pure diet under a variety of circumstances.

With regard to abstinence from fermented liquors, there are now millions of total abstainers who are pledged to the principle, and are anxious to save others.

From a pamphlet by the Rev. W. Roaf, we extract the following passage. After describing the extent of the mischief, and stating that in this country there are 600,000 occasional or habitual drunkards, and that 60,000 die annually, the writer says :—" Whence comes all this? Who opened the Pandora's box? Who first let out the waters that have swollen to a deluge? Moderation! Yes, let the truth be told, let it go forth rattling as the thunders and vivid as the lightning, that Moderation, with its boasted virtues and limits, is the mother of all intoxication. Can anything be truer than that if a person never drinks moderately, he can never drink immoderately; if there were no young serpents there would never be any old ones; if there were no dawn there would be no day; if there were no children there would be no men? Now as surely as the child precedes the man, and dawn the day, so surely does moderation precede intoxication. Many are moderate who never become intoxicated, but none are intoxicated without being previously moderate. Let moderation be abandoned, and henceforth intoxication would soon cease. Myriads have thought moderation virtuous, because the religious part of the community practised it, and being free of religious restraints, have gone too far. I appeal as to wise men; judge ye what I say. Are not the moderation habits of this realm the parents of our intoxication? And

are they not more dangerous also? Your child sees a drunkard, and revolts at the sight, and would die rather than be thus disgraced; but he is not aware that an occasional treat of wine or other drinks may bring him to it. Drunkards may become a beacon to warn and alarm *their* children, and keep them sober; while moderation is the soft light to allure and captivate; the first is as the yawning gulf into which none go intentionally, the other is as the Serbonian bog where armies whole have sunk. Besides, who can assign *limits* to *moderation?* Does not the taste and physical action of liquors tend to a violation of all rule? Have not the most solemn intentions, the most firm resolutions, the most urgent entreaties, the most sacred interests, all been spurned when we have once looked upon the wine that is red? Has not moderation been the inclined plane on which it was impossible to glide on the graduated distances? On the other hand, consider not only the danger, but the perfect inefficiency of the moderation system; while total abstinence has reclaimed millions—millions more has it prevented from going too near the pitfall."

A striking instance of the effects of total abstinence was stated in the *Georgia Enquirer:*—"There is a populous village not fifty miles from Columbus, in which not a drop of ardent spirits is sold during the year. In the sale of lots at its first settlement (1836), it was made a condition of title that the lot should revert to the original proprietors whenever a dram-shop, or any such thing, should be opened upon it. The village has been free from every kind of immo-

rality up to the present day, and there is no reason why it should not continue so up to the end of time."

In the village of Ruttersville, in Texas, no spirituous liquors have been sold there since its settlement in 1837. Such spots as these are like the shadow of a a great rock in the midst of a desert land. You may know an individual who is above eighty years of age, and he has lived *well*—that is, destructively; perhaps so, but had those persons who, by more than usual good constitutions, lived to seventy or eighty, adopted a rational mode of living, instead of being distinguished by gout and palsied limbs and weak intellect, they might have lived to 120 or more, and died without suffering; whereas now they are set up as devil's decoys, as Bishop Berkeley observes, to draw in proselytes, and as an *ignis-fatuus*, or will-o'-the-wisp, to destroy others in the swamps over which they passed for a time uninjured.

Honesty, morality, devotion, gaiety of disposition, and mental power; longevity, health, symmetry, strength of body, and endurance of fatigue; all these have been proved to result from real temperance. Evil desires, mental gloom, irreligion, crime, and insanity, disease and early death, deformity and prostration of bodily strength, are the result of our present dietetic habits. Can we look at the two pictures unmoved? Will not every true Briton make an effort to relieve his country from the disgrace? Will he not try to elevate himself and those around him? It is a national question and a national duty; with this crime in our hearts, prayers

to the great Author of our being in times of distress will only be lip service. We must strive to save the 600,000 habitual or occasional drunkards who are victims to this habit.

Let there be one universal shout for *temperance;* that is the true, the only reform which can really be of any service, the ground-work of all; with that alone can we truly say, "Thy will be done on earth, as it is in heaven." Let us work for what we pray.

> "Great men ever seem to say—
> *Work*—to labour is to worship,
> And to labour is to pray."

Let us work then in the cause of self-denial, and we may be saved from many evils and inflictions in the coming times of retribution. As Shakespeare wrote in the days of Queen Elizabeth, so now in the days of our gracious Queen Victoria, the danger is from within.

> "This England never did, nor ever shall,
> Lie at the proud foot of a conqueror—
> *(But when it first did help to wound itself).*
> Come the three corners of the world in arms,
> And we shall shock them! Naught shall make us rue,
> If England to itself do rest but true!"

What have we not to answer for in destruction of human souls! Still we go on, the enlightened and the wise leading the way with their gorgeous feasts, their wines and mixtures of abominable things, laying the seeds of disease and of an enervated race. The good that would ensue from a complete change of the habits of English society would be immense, not only to themselves but to the whole world; the grape, instead of

being corrupted and converted into alcohol, would be in demand as food, as grapes or raisins, which are remarkably wholesome; the sugar would all be used, instead of being made into burning spirit; the same attention to the laws of health, and the physiological condition of man's frame, would banish tobacco from the list of our supplies, and the flesh of animals would give place to grains and fruits. But what language can be used sufficiently strong to awaken the nation? These authorities and examples, indeed, ought to show men that they cannot be doing their duty to God, or to themselves, or to their neighbours. Some may say, "Unfeeling man! you do not consider what ruin you would bring on thousands — nay, millions of mankind! The butchers, the brewers, and the publicans; would you sacrifice them all to your temperance crotchet?" To such I reply, these arguments are held out to stop every reform. We have seen the railway system displace the coachmen, the postboys, the innkeepers; we have seen the Corn Laws repealed, and Protection given up; and yet we now enjoy a degree of national prosperity unequalled. We must not, then, be deterred from doing that which is right by any false notion of injuring worldly interests. Our trust is in God! and if we obey His laws, we may trust in Him with perfect security for good results.

To you, as individuals or as a nation, I would ask what profiteth it if you gain the whole world, and lose your souls? Now it is a fact that about 50,000 drunkards die annually in this country. This number of souls can only be saved by the total abstinence

system. Adopt this system, and before many years are gone by, you may expect to turn your hospitals and prisons and poor-houses into schools; your brew-houses into baking-houses and granaries; your pastures into orchards and gardens; your brewers, doctors, publicans, and butchers, into useful and peaceful denizens of a new world, instead of being agents of destruction to their neighbours.

If I have made any impression on a confirmed invalid, or on a votary of fashion, whom circumstances bind in their iron grip, let them go to one of those retreats of hydropathy or water-cure, and by means of the purifying water, air, exercise, and diet which are there recommended, *begin* a life of temperance. It was thus I was emancipated from the errors of custom and fashion, and to that system as one great advance we owe much.

To each and all the trumpet of alarm is sounded; the enemy is within your gates; begin the battle for God and for man—expel the great destroyer Alcohol, and follow up that blow by pursuing to the utmost *the course of Temperance.* But, looking upwards, let us say with the poet—

"Through each perplexing path of life
Our wand'ring footsteps guide;
Give us each day our daily bread,
And raiment fit provide.
O spread thy cov'ring wings around,
Till all our wand'rings cease,
And at our Father's lov'd abode
Our souls arrive in peace."

CHAPTER XVI.

FELICITY AS A SANITARY RESEARCH.*

OUR Congress this year has been ringing peals of congratulation, and the peals are deserved. Sanitary science, in some simple directions, has won triumphs such as have never been won before, and its advocates, once called enthusiasts, dreamers, visionaries, and other poetical names, are now, in respect to enthusiasms, dreams, visions, looked upon as commonplace observers. The miracles they declared possible are performed so regularly, that wonder and doubt have ceased.

We sanitarians declared that it would be a comparatively easy task to find out the courses, and, at least, the proximate causes of the great pestilences, and that, with a fair knowledge on these subjects, combined with a comparative ready assistance by the public, we could control both the courses and the causes. The work has not been done so thoroughly as we could have wished, because the public has not come up, as yet, to our views; but the work is progressing, and sufficient is already done to prove the truth of our position.

We said that the once current rates of mortality were deathly of deathly; that they represented a *low*

* The evening lecture to the Congress, held in Glasgow, on "Felicity as a Sanitary Research," by B. W. Richardson, M.D., F.R.S., delivered Thursday, September 27th, 1883, abridged, with the author's kind permission.

civilisation; that they might, in these countries, be reduced generally to a mean of fifteen in the thousand per annum, and, in favoured localities, to a lower figure still. We were taunted with the rejoinder, that if such were accomplished, men and women would live a hundred and fifty years. We replied, Let them live two hundred years if they like, but let us, anyway, reduce the huge mortalities which are considered natural.

The result of our work is, that there are towns where the average mortality is actually lower than fifteen in the thousand. Strangely, too, the popular cry is not now against us as enthusiasts, but against towns which do not follow up our enthusiasm. Towns, therefore, in this day, compete with towns for a low death-rate, knowing well that should mortality, from temporary, and as yet accidental causes, rise to what was considered the mere natural a quarter of a century ago, they are temporarily ruined if they depend upon outside popular favour for existence.

All this is most satisfactory, and would afford a fruitful theme of discourse. But what I want to-night to rivet on the memory is a new thought for new work. I want to put a question or two, and endeavour to answer them.

Can we honestly believe that these triumphs of ours, which have so far ended in a certain victory over death, have introduced any fraction of triumph over misery?

Have we by our labours assisted to make men, women, and children happier as well as longer lived?

Have we tried to effect anything in that way, or have we, aiming at nothing more than the promotion of a longer life, left the rest to chance, as if it were not our duty to include human Felicity in our design of labour?

Can we effect anything to ensure Felicity as well as length of days? In other words, is Felicity a subject open to sanitary research, and, if so, in what direction shall we labour for it?

These questions are momentous, because, if we are aiding in the art of adding to the length of life, and in developing populations, without giving to an extended and universal life, Felicity, or the enjoyment of that which is given, we may, in the long run, be working evil rather than good for the human race.

A race unhappy lives too long to live.

Surveying the questions I have submitted, I do not think that we have so far done anything to add to human felicity. In the first stages of our labours, that indeed were impossible. We have had to deal with very unpopular and, some think, unsavoury subjects. We have had to be excessively personal. We have been obliged to tell people to be clean both at home and abroad. We have been forced to be fault-finders all round. We have even had to frighten the masses, and fear is a terrible foe to felicity, both in the house and out of it; and until, one day, I ventured to show by an allegory a pleasant side-station on our steep and narrow road, we seemed to conceal the destinies of life we had in view, or leave them for anybody to discover by chance—an almost hopeless expectation.

We have not tried, therefore, in any direct manner to teach the way to felicity. We may, like the rest of the world, have spoken of health and happiness. We may have commented on the sound mind in the sound body; but we have not tried to systematise effort towards the attainment of felicity as we have towards the attainment of length of days.

I may make these admissions without compunction or regret. If we have done no good in the direction I have referred to, we have certainly done no wrong. There has not been sufficient time for a development of Infelicity from extension of life, so we need not ourselves be unhappy.

But now comes the great question.

Can we by any efforts advance human felicity by a scientific research into the sources of it, and remove the impediments to its attainment? Can we, scientifically, connect health with happiness? If we cannot, we had better never have been born. We are like preachers of mercy who are empty of charity. We are mere sounding brass and tinkling cymbal.

I do not believe that we are in this plight. I hope it is all right that we were born. I believe that we have the moral as well as the physical health laws plain before us for study, and that we of all men ought to see how to combine the physical with the moral, and to understand the relationships of the one to the other, and the interdependence of the one on the other. I trust, therefore, that from this present Glasgow Congress we may take a new departure, by inaugurating a new school of sanitary students and scholars,

whose interests it shall be to learn the physical and moral art of living well, so that bodily health shall of a truth be mental felicity. A dream! do I hear it said? If I do, I hesitate not. It was a dream a quarter of a century ago, that men could touch death-rates and reduce them to order. To-day, the dream is a fact.

I see no reason why we should not, by patient research, know all that pertains to our own lower natures at least. I can feel the astronomer overwhelmed with the sublime story that lies before him. I can see the metaphysical philosopher overwhelmed as he questions the illimitable destinies, and the sources of illimitable powers of will and being. But we sanitarians, dealing with secondary phenomena, with our timepiece selves going through regular courses of eating, drinking, breathing, thinking, working, wearing, sleeping; with mechanism that can be counted, measured, weighed, and calculated on commercial values; we surely have no insurmountable difficulties to get over in determining what are the conditions under which human felicity is possible, and what are the conditions which prevent us from finding it. The hardness of the task lies, at the outset, in getting an understanding of the actual meaning of Felicity.

Felicity is in contrast to misery. To many minds no more. A fancy, an invisible breath of some poet who writes what he has never known, and has never expected to know; or a laugh of some cynic who, tired of life and its vanities, declares that "All things are alike to all," and that man with the beasts, neither goes upwards nor downwards, but dies.

To men who, like myself, are engaged from ten to eleven months each year listening to the sorrows which the sick are forced to tell, and the healthy are forced to confirm, it would not be difficult to conclude that there is in the human world no such thing as felicity. There was a noted physician I once knew well, who told me at the close of a career of fifty years of active practice, during which few men had seen more of his fellow-men, or had observed more keenly, that he never had met a perfectly, or, indeed, a comparatively happy human being. His view was not altogether peculiar. The professors of medicine generally are felt by many to be stoically indifferent to sorrow as compared with other persons. They are not so at heart, but, knowing the smallness of human felicity, they are less oppressed than others by the extreme and tenderly acute occurrences of sorrow. They read the Book of Wisdom every day from nature, as the Chaldaic writer of it did, and so, in the everlasting presence of nature, become possessed of a demeanour, which seems to separate them from the individual life; and as in that presence felicity is not the feature they are most wont to recognise, they give it wings to fly away, or only to be expected in the unknown future.

PROOFS OF FELICITY.

By the hard and fast scientific mode of looking at the phenomena of Nature, it might seem, then, at first view, that human felicity had no proofs of existence. There are fortunately other evidences which give positive proofs in characters as purely scientific and certain

as any in the observation of science. Granting that these are exceptional evidences, they are still in proof. I notice four of these evidences as all-sufficient.

1. In perfect childhood, uncrossed by perverse and chilling influences, and blessed by health, felicity exists —not universally, but as a rule. I remember some few pages of my own childhood, which were filled with an unbounded felicity—a felicity to be remembered, although it cannot be again realised or explained in relation to the precise causes that led to it. I have questioned others on the same point, and although the response was much more frequently in the negative than I expected to find it, although the inquiry has often laid bare a recollection of misery rather than of felicity, that could not have been anticipated in childhood, it has yielded certainly a majority on the affirmative side. The evidence is sufficient to prove the reality of the phenomenon in at least one stage of life.

2. There are, again, men and women who, by some fortunate heredity of constitution, go through long, trying, and eventful careers with perfection of felicity. Dr. Joseph Priestley was one of these fortunates. "I was born," he says "of a happy disposition." And so this man, through a life of struggle and tempest such as few men have known, was ever in felicity. In his child-life he loses his mother. He leaves his home, and is domiciled with an aunt, whose gloomy tenets would drive some natures to the deepest melancholy. He passes through severe changes of thought on solemnest subjects. He becomes a preacher, but,

owing to a defect of speech, cannot display an eloquence he knows is in him, and, tossed from pulpit to pulpit, penniless, is forced to teach that he may live. He becomes half-friend, half-librarian of a nobleman, by whom he is petted at first, and then, with the capriciousness of power, is turned off, as a once favoured dog might be, without a word of explanation. He makes one of the grandest discoveries of the century, and lives to see the discovery accredited to another man, to whom he communicated it in the most open manner. Suspected of sympathising with children of liberty he becomes, under the instigation of a rival preacher, the victim of a furious mob which burns his house, and all his precious papers and treasures, wishing him heartily the same fate. Escaping to London, he is obliged to hide from enmity, and, cruelest cut of all, is disowned by and cast out of the learned society, whose work he has helped to immortalise. At last, driven in his old age, from his native country, he goes, forgiving everyone, to a foreign and distant land to die there in perfect peace.

Such changes as these, such oppressions through every stage of life, would kill a multitude of ordinary men. Yet here was one who went through every phase of suffering with felicity. His friends, one and all, bear witness to this fact from their objective side. He personally testifies to the same, and explains the reason : " I was born of a happy disposition."

We gather from such instances as these—rare, it is true, but reliable—that, in the range of physical life, there is a felicity due to heredity ; to some combina-

tions of ancestry, which, being repeated, would lead to the birth of an almost new race, amongst whom Priestley's own maxim—"the greatest good for the greatest number"—would be the common blessing; for, that which has once been born may be born again, and, being perpetuated by birth, become universal. If one man can hold felicity in his hand all his life, and under all adversities, why not all men?

3. There is a third proof, or illustration, of felicity which comes within the knowledge of the majority of mankind. This proof consists of the sensation felt at times by most persons of a sense of peace, tranquillity, and, in a word, felicity, which, in consequence of its abruptness and the sharp contrast between what has gone before, is a cause of extreme surprise. In such moments the actual cares of the world—cares heavy and sorrowful—sit lightly; the impossible, a short time before, becomes the possible or the easy. Dark forebodings, which have pressed almost to despair, pass away, and the future is roseate with prospect.

There are few who have not experienced this occasional enjoyment of felicity. They may say that it is a fleeting change, and that may be true; but the fact of its reality is certain; and it is also instructive, for, if felicity can be obtained for one day, for one hour, why not for all days, for all hours?

These flashes of felicity are sometimes startling from their abruptness. They are at other times equally startling from their intensity, and from the relief they give to the opposite depression, from which they stand out in contrast.

In speaking of this contrast, and of the advent of felicity after extreme depression, the common terms used to express the conditions are singular. The depression is described as a physical weight, and felicity as the removal of a weight, which, like a physical burthen, has oppressed the body, and in extreme instances has bent it low. "He is bowed down with sorrow," is an expression as true as it is striking. Bunyan seizes on this physical truth. His pilgrim, while yet wanting felicity, is troubled with a burthen, which weighs upon his back night and day, felicity coming when that burthen falls from his shoulders. The illusionist has here defined what he himself had felt, and hence the force of a description which every man and woman who has read Bunyan has, with few exceptions, recognised. Felicity is lightness from burthen. The common folk call it lightness of spirit, light-heartedness, as being lifted up above the common fate of daily oppression and daily sorrow.

When felicity is absent, the sense of depression shows itself in other ways which indicate the physical process, and suggest the ponderable nature of something that tells both on the body and the mind. In states of depression the faculty of memory is often overburthened with labour of details, long stored up, which are remembered, re-arranged, and re-conjectured upon with painful precision. The thoughts undulate, and great waves seem to overwhelm another organisation belonging to the man himself, yet lying afar back and obscured by these rolling tides, dark, dense, material, and weighty. With felicity all these waves

of deathly pressure pass away. The memory is charged with no recurring scene of sadness. The calculated difficulties disappear. The organisation which lies in the shade becomes brilliant, and the future hopeful.

4. Lastly, there are certain objective proofs which observers may see if they will notice others, and which as independent evidences are perhaps the most reliable. A good perception of character and, if I may say, diagnosis, leads the looker-on to note and know the symptoms of felicity in others, for the symptoms are clear. In the wake of felicity the pulses are regular, tonic, free. The breathing is natural. The eye is bright and clear. The countenance, even in age, is youthful. The appetites are keen but orderly. The judgment is sound and joyous. The muscular bearing is firm, co-ordinate, steady; there is no indication of carrying a load on the back, nor of oppressive sinking exhaustion.

PHYSICAL CONDITIONS INFLUENCING FELICITY.

By a sort of general impression, the weather is believed to exert a peculiar influence for and against the phenomena of felicity. In this view there is undoubted truth. An *increase of the atmospheric pressure and a decrease* is each a cause of felicity. In ascending from valleys to moderate heights, there is, up to a certain distance, a distinct effect of the kind. So definite is this action, that I know of one person who, under some conditions, feels life is a load too hard to bear, but who, in a dry, bright, mountain region,

to which resort is often had, throws off the despair altogether, and lives a new life. In the nicely-adjusted balance of atmospheric pressure against animal circulation of blood, the circulation is relieved by a moderate removal of pressure. But if such removal be too great, if the organs of the body become congested from the removal, as they may be, the spell is broken.

The brightness of mind induced by removal of pressure and freer circulation is, however, bound by other conditions. Dryness must accompany lightness of air to produce the state favourable to felicity.

There are *electrical conditions* of the atmosphere, during which felicity contrasts strongly and strangely with the depression incident to other conditions. My friend Mr. Hingeston, of Brighton, has very beautifully connected these varying states of atmosphere from electrical influences, and these varying states of mind with cloudland. He reads in the clouds the outward and visible signs of the mental state. The large white-headed cumuli that collect in clear bright days, are rotary storms of hail, rain, or thunder, gyrating from left to right. Several of these gyrating storms keep marching onwards in alternate spaces, marshalled in vast circular array, and rolling round a circumference of bright translucent calm.

Now the debilitated experience, favourable reaction, and the mind is serene and happy. The air in these moments is antagonistic of disease. With the breaking up and dissolving of these large cumuli, there is electric action, and most likely explosion, as the vapour is condensed into water.

The entire atmosphere then changes; everything is dull and grey; the so-called dyspepsia prevails, the acid indigestion of gouty habits, the scrofulous indolent and pitiable host of "never wells."

Thus, continues my friend, the sensorial effects of the electrical fluid are proof paramount of its pathological, physiological energy, and the various forms assumed by the vapours condensing or dissolving in the air—clouds—may be considered not only as picturesque beauties in the landscape, but also as criteria for judging of some of the most potent effects resulting from the operation of an experiment, silently and delicately performed upon the functions and sensations of animated beings.

Cold and Heat each play different parts in production and reduction of felicity. A dry and sharp cold, what is called a bracing cold, exerts a gentle pressure on the surface of the body, which fills the nervous centres with blood, and helps to felicity of mind. A long and piercing easterly chilling cold checks circulation, robs heat, and produces even melancholic sadness. A dry genial warmth acts like a bracing cold; a long warmth with moisture checks the vital action, and produces a degree of depression which may be as intense as that which is induced by prolonged exposure to cold.

Purity of the atmosphere is an unquestionable aid to felicity. The comparison of children living under differing circumstances is sufficient proof of this fact. Children in an open well-ventilated schoolroom, how different are they from those who are immured in the

close over-packed dens which are mis-called school-rooms. The felicity of the children of the well-to-do who live out of doors, and of the children of the fields and open streets, compared with the felicity of those of the small trader whose back parlour is living room and playground; the felicity of the man or woman who leads an out-door life, compared with the felicity of those who live in the close office or workroom, how entirely different.

Foods, Drinks, Narcotics.

There are still other agencies which bring or which check human felicity, and which are purely physical in character, as those above recorded.

There are substances which, taken into the body, produce strange contrasts in respect to felicity and depression. Foods well cooked, foods carefully selected, foods supplied in sufficient quantity to sustain the body equably in all its parts, but so moderately as never to oppress the nervous digestive powers, conduce to felicity in the most telling manner. As a rule, all agents which stimulate, that is to say, relax the arterial tension, and so allow the blood a freer course through the organs, promote, for a time, felicity, but in the reaction leave depression. The alkaloid in tea, theine, has this effect. It causes a short and slight felicity. It causes, in a large number of persons, a long and severe, and even painful sadness. There are many who never know a day of felicity owing to this one destroying cause. In our poorer districts, amongst the poor women of our industrial populations, our

spinning, our stocking weaving women, the misery incident to their lot is often doubled by this one agent.

There is another agent more determinate in its effects and contrasts than tea, and that is wine. I am a total abstainer, but I am, I trust, an honest observer also, and I confirm, from direct observation, the old saying, that "wine maketh glad the heart of man." If it did this, and no more, I should say let the felicity of wine remain to the world. Wine, like the alkaloid in tea, relaxes, lets loose the channels of the blood; gladdens like the ascent of the mountain side; gladdens like the gentle atmospheric pressure which forces more blood on to the internal parts. But, and here alas! is the rub. Carried a little beyond the right mark, the felicity from wine passes into folly, the folly into feebleness, the feebleness into stupor, and the stupor into a depression, the reaction from which is the bitterest, the most persistent.

Tobacco is another substance used to produce abeyance of anxiety. Tobacco is said to soothe irritability without stimulation, but it leaves, in many persons, long depression, coupled generally with an appetite for a renewed indulgence in it, which becomes intense. The confirmed smoker, who can stand out against indirect effects, whose taste for food, and whose digestive endurance are little injured, is kept during the whole time he indulges, in the state of suspension. He does not enjoy felicity, but for the time experiences a relief from infelicity. My own experience, on the whole, is opposed to the indulgence,

and I tested it for a long period of my life, as well as observed the effect of it on others. To the aged it gives, I confess, a negative existence which, when the mind is not filled with choice, or refined or cultivated pleasures, makes time less wearisome. To the man who engages in work of great excitement and of a mental kind, it brings a joyless repose. But, on the whole, it is a bad, and sometimes a fatally bad indulgence. I have once known a man die directly from the effects, and how many I have seen injured I cannot say, but a large number. Again I have seen many much depressed by it, so that I dare not put it forward, at its best, as a promoter of felicity. The world, I must conclude, would be happier if tobacco were unknown or unemployed.

The habitual use of opium for the obtainment of felicity is of the same erroneous character. The opium smoker, the opium-eater, tells us of certain dreams and phantasies, which are for a moment felicitous wanderings of the mind. I have visited the opium dens to see the effects, and whatever the dream may be, subjectively, it presents to the observer no sign of felicity. The expression of the opium-smoker is one of restless and intense anxiety. He looks like a man in a dream of misery. His eyes are joyless, his features contorted, his skin colourless or dark, his pulse slow and labouring, his breathing hard and heavy; and, when from the half-struggling consciousness he wakes to reason, the dream he describes is too confused to be accepted as a dream of felicity. Then he falls into dejection, which deepens and deepens until the desire to return

to the cause of the dejection is too overpowering to be resisted. To opium-eating, and to the subcutaneous injection of morphia, the same description, with some modifications on which I need not dwell, is perfectly applicable. From the use of such an agent as opium there can be no result of human felicity. There could soon be produced by an extension of the use a madder world than now exists, a more miserable; a happier, never!

And this saying, according to my knowledge, extends to all narcotic substances. There are some, like methylic ether and nitrous oxide gas, which produce for the moment infinitely more refined felicity than those I have specifically named, but in the end the results are the same.

CONSTITUTIONAL INFLUENCES.

There are some constitutional differences determined by temperaments, which are of first importance. Of the four primary temperaments, the sanguine, the nervous, the bilious, the lymphatic, and of their relation to felicity, a volume might be written, and I have collected the facts relating to the temperaments of over a thousand persons towards such a work. I must not here touch, however, on any detail. I must be content to record, as a general fact, that the sanguine is altogether the happier temperament, but not always the most sustained as such; that the dark or bilious is the least happy in early life, but is often in later life more serene; that the nervous is a varying condition, full of ups and downs; that the lymphatic is by a negative

effect the most even; that, amongst the twenty-four combinations of temperaments the sanguine lymphatic is the most felicitous in respect to physical pleasures; and the bilious sanguine, and the bilious lymphatic, in respect to intellectual; that the nervous sanguine is the most irritable; and the nervous lymphatic the most helpless and miserable.

The moral influences and impressions affecting these natures are, from first to last, potent for good or for evil. In childhood, the future history of the felicitous or infelicitous after-life is usually written. A few, born like Dr. Priestley, of a happy disposition, fight through all adversity, filled with a magic soul of felicity, but they are very few, and are commonly, though I dare not, in the face of natural truth, say always good. They, even in childhood, are not affected as others are. In the school-room as in the playground, they are comparatively happy.

As a rule, the tendency to felicity or its opposite is planted in childhood. The parent, the schoolmaster, the schoolmistress hold the book—not of learning simply, but of fate. To the imitative mind of the young, absorbing all that the senses can carry to it, and the nervous centres can retain, the character of the presiding mind, ever present with joy or sorrow, justice or injustice, love or hate, cruelty or mercy, as its qualities, is the beginning of the end.

Of the two living natures with which man is endowed, and which distinguish him from the lower creation—the pure animal, and the pure intellectual natures—felicity belongs to the animal nature. An intellec-

tuality that would separate man from the animal, would leave him beyond either felicity or infelicity.

Felicity, in fact, is not an intellectual quality—it is not centred in the brain. It is not a quality which a man can think himself into, or reason himself into, or directly will himself into. It is like the beating of his heart and the circulation of his blood—a vital process going on independently of his volition. He can by rude process destroy it for himself as he can for others. He can kill it for himself as he can stop the motion of his blood by stabbing himself to the heart, but still the quality is so independent of himself, that he is often forced to be in felicity by things and acts and circumstances which his reason scorns. "Why does this fool of a book make me happy," said a hard and suffering and miserable patient once to me, as he pitched his "Pickwick" to the foot of the bed. "Yet it is the only thing that does, while all the time I know that such a set of asses as these Pickwickians could never possibly have existed."

By experience of what seems to increase felicity to lighten misery, to make misery, we often confound felicity and sorrow with intellect. This is merely our own external looking upon external manifestations of internal phenomena, which we know we cannot influence in the same way as we can teach a lesson or convey a fact, but which we strive to control because we think we must do something, even for the uncontrollable.

Felicity and Infelicity are not intellectual faculties, neither are they passions, neither have they any direct

relationship to physical pain. They are distinct from intellect, passion, physical pain. They are the only true emotions. The man who is destitute altogether of felicity is not, of necessity, intellectual, passionate, destitute of passion, or more or less sensitive to pain than anyone else. The most intellectual may be the most miserable; the most silly and inconsequent may be the most blest with felicity. The worst instance of extreme, I may truly say, harrowing misery I ever knew was in one whose clearness and calmness of judgment was a subject of general admiration, but who had never, he told me, known in all his life an hour of felicity. The man most replete with felicity I ever knew was one endowed with no intellectual supremacy at all, and who was all through a long life a veritable child.

The centre of the emotion of felicity is not in the brain. The centre is in the vital nervous system—in the great ganglia of the sympathetic—lying not in the cerebro-spinal cavities, but in the cavities of the body itself, near the stomach, and on the heart. We know where the glow which indicates felicity is felt; our poets have ever described it with perfect truthfulness as in the breast. It comes as a fire kindling there: no living being ever felt happy in the head: everybody who has felt felicity has felt it as from within the body. We know, again, where the depression of misery is located; our physicians of all time have defined that, and have named the disease of misery from its local seat. The man who is always miserable is a "hypochondriac;" his affection is seated under the lower ribs. No man

ever felt misery in the head. Every man who has felt misery knows that it springs from the body, speaks of it as an exhaustion, a sinking there. He is broken-hearted; he is failing at the centre of life; he is bent down because of the central failure, and his own shoulders, too heavy to be borne, feel as if oppressed by an added weight or burthen, under which he bends as though all the cares of the world were upon him to bear him down.

HABITUAL, SENSATIONAL, AND MORAL INFLUENCES.

Felicity is always favoured by sufficiency of *rest and sleep*. Bad sleepers know no felicity; but they who in childhood and old age sleep ten hours, in adolescence nine, and in full age eight hours, out of the twenty-four, and that soundly, are mostly well-favoured with felicity. They may be exposed to causes which are opposed to felicity; but even then the causes are feebler in action than they otherwise would be. I put sleep in the first place as an aid to felicity, because it comes first. I have no knowledge of any instance in which a person who slept well was altogether devoid of felicity. The beneficent action of sleep is, however, indirect. It is due to the physical and mental strength which it confers on its favoured child.

Strength of body favours felicity. Persons comparatively weak of mind may, with a good physique, be happy; but very few who are weak of body have any long tastes of felicity. It is a matter of common observation that persons who are so unfortunate as to be born deformed of body, though the defect be con-

cealed or hidden, are not blessed with felicity. It need not be deformity that causes infelicity; but the bad health is the rooted cause. Let the defect be from accident happening to a body born of good stamina, and felicity may be the same as in others, despite the acquired defect.

We physicians know that a sluggish circulation is incompatible with felicity, and that they who show this indication, by such local diseases as hæmorrhoids for example, are amongst the most depressed of those who consult us. We say of them that they suffer from arrested circulation through the liver, and, doubtless, such arrest is depressing; but the arrest means physical exhaustion, and physical exhaustion is the root of the evil. When the circulation is sluggish the liver is sluggish, and the brain is sluggish and the nervous centres are depressed. In a sentence, whatever prevents physical exhaustion and sustains physical strength sustains felicity, whatever exhausts sustains infelicity.

When the sun of life is high,
  All is bright.
When the sun of life is low,
  All is night.
Thus we laugh, and thus we sigh,
Light and shade where'er we go.

Physical work, when it is carried short of exhaustion, keeps up felicity, and sloth destroys it. But the physical work that exhausts kills felicity. The argument extends to *mental work*. Moderate, wholesome, mental work, is the best of all aids to felicity next to sleep; it strengthens the mind, it softens grief, it lessens care.

Carried to excess, it is pernicious, and destroys all felicity. Cowper, the poet, was wont to say that no labour is so wearing as composition, and few men possibly felt more unhappiness as the result of mental exhaustion than he. But his was the fate of all who force the brain to daily or nightly repeated weariness.

The influences derivable from sleep and bodily power are purely physical influences, but there are others called *sensational*, which, through the physical power, have a potent effect for or against felicity. The sense of hearing has the most intimate connection with the vital or animal nervous system. The auditory nerve possesses many of the characteristics of an organic or sympathetic nerve, and we all know how many external vibrations which reach the ear, affect the digestive system, producing sense of warmth in the body, appetite for food and feeling of felicity; or, on the other hand, setting the teeth on edge, destroying appetite, and giving rise to gloom. Thus, things told, affect us quickly, often permanently, for good or bad. The sense of sight influences also, but less intensely, and after a different manner. Sights gladden or dazzle, or pall, or sicken.

Not to extend an argument, which admits of any extension, the senses, as doors and windows through which influences vibrate into the animal organisation, can scarcely be touched by external phenomena without conveying some influence that shall make or disturb, or prevent felicity. When they convey beauty in sound or picture; when they convey variety; when they convey cheerfulness of act, and manner, and

voice, and feeling; when they convey to the soul the idea or story of generosity, of courage, of purity of life and character, of prosperity; then they convey felicity which, passing through the brain on its way, finds its seat in the vital centres on and near the heart.

Felicity stands precisely in the same position as health: in the widest sense it means health, is another word for health. Health is born, and is made and unmade by external agencies which, as yet, are out of human control. Health is made and unmade by numerous influences which are under human control. Felicity, similarly influenced, depends on the good working of the animal or organic systems of life.

I could enter here into one of the most absorbing questions relating to the connections which exist between the lower and the higher human faculties. I could indicate how the lower and higher nervous centres, charged during life with a subtle ethereal medium, communicate with each other, and with the outer universe, and how, by the states of this refined inter-communicating bond or sphere, both health and felicity are moved by external pressures, by external vibrations, by external agents taken into the living organism, by products generated within the organism, and diffused through its own atmosphere. But I leave this inviting subject for a more immediately practical application of the few minutes which remain for discourse, viz. :—

PRACTICAL DESIGN FOR FUTURE WORK.

Over those atmospherical causes which have been noticed as influencing felicity, we can exercise as yet

no direct action. At the same time, just as we can now divert the lightning from its fatal course, we can indirectly effect good. We can prevent, as far as our teaching is effective, the erection of human habitations in dank and humid places, below the sea level, or in dry and arid spots. We can protest, and if we are clear and reasonable in our demands, we can successfully protest against the construction of new towns on melancholic foundations, and can explain the choicest places for felicitous existence, in so far as foundation is concerned.

A report from such an Institution as ours, or from any learned sanitarian, on this one subject, addressed to those children of enterprise who are colonising the worlds that are to come, would affect, if it took root at all, all the generations of the men to come in those new regions, and to a large extent the felicity of the whole future human family. In Africa at this moment, the seed of new life that is being sown will, largely, be seed of felicity or seed of sorrow, according to the selection of the sites on which the new and great centres of life are constructed.

Nay, in this direction man himself may divert the operations of nature herself. He may change her surfaces as he cuts down her forests, or plants new forests, or alters the courses of rivers, or makes new courses, or fills up valleys, or lowers or raises mountains, or connects or disconnects oceans. With the mastery of the surface of the planet in his power, man may, in fact, make what regions he pleases for good or for evil.

The Earth is the Freehold of Man.

If the natural air which man makes not, and invented not, may be to a large extent utilised for felicity, how much more easy is it for him to remove the unnatural which he himself makes, so that instant advantage of what is provided for good may be rendered serviceable?

Here our voices should be heard in a tone not to be mistaken. We shut up our young in closest rooms of close towns; we shut up our men and women by the millions in close shops and factories. Some one million of us in these islands who call ourselves, with ignorant irony, the ruling classes, shut up some twenty-five millions of the people, with their wives and children, in walled up atmospheres, where atmospheric purity is unknown, where cold and heat oppress, where food is what can be got, where drink is what can supply a false felicity for a certain sorrow, where marriages re-establish misery, where good sleep is impossible, where physical strength is so impaired that a perfect body is not to be found, where exhaustion from work is the daily cross, where things and objects of beauty are rare as angels' visits, where, in the selfish race to barely live, generosity is impossible, where, in compressed homes, purity of mind is a thing the purest can scarcely maintain, where variety is replaced by the dead monotony of unchanging sounds for the ear to hear, and scenes for the eye to see, where fear dominates over courage, where hope has no chance, where prosperity is so little known, that the worn-out life has no expectation this side of the grave, and where death is so busy that three die to one in the

more favoured communities. We, one million, I repeat, shut up our twenty-five millions under these conditions, and wonder why those millions know nothing of felicity; why they are peevish, reckless, melancholy, sometimes drunken, sometimes rebellious and ready to run after any leader who shall promise to lead them into a happier sphere, however little removed from that in which they are. Wonder! the wonder is how human nature can bear such a famine of felicity, and live as if it only lived to die.

To give the boon Felicity to these masses we, not as revolutionaries, but as laborious workers for them and the thing most wanted, have, I trust, come into existence not in vain.

It is better for this work that we should be as we are—men of science rather than men of politics. We are, then, in the first and true place. We are educating politics, as well as men, by what we teach—an education which, in the present dense state of political darkness, is the noblest work we can possibly execute, until those who rule understand common human nature.

In the direction of education, the sanitarian teacher should, I think, begin to study this psychological side of humanity; what human nature can, and cannot bear; how much pressure can safely be put on humanity without danger of explosion; how much felicity can be secured by removing that danger.

Beyond the task of inculcating what are the necessities calling for pure atmospheres within and without the body, we can, most appropriately, explain what

agents taken into the body are for felicity. We can teach what temperance in all things effects in this direction. We can use our earnest will in declaring for abstinence, where nothing but abstinence is the safe line of conduct. We can denounce every indulgence that undermines and mocks and destroys the blessing. We can insist on cleanliness—cleanliness of body, cleanliness of mind. We can show how flowers and plants grow for health as well as beauty, and why, for both health and beauty they must join the home circle if felicity is to enter it.

These are all sanitary questions, and they all as one bear on felicity.

We may educate again in another direction. It has been shown that some exceptional men are born of a happy disposition; and it might have been shown, on the clearest evidence, that multitudes are born of an unhappy—nay, miserable disposition. We could easily by our researches describe what are the lines of heredity for the happy and for the unhappy dispositions. We could, with this discovery in our hand, with certainty of being listened to and attended to, impress on the people the truth—that marriages ought neither to be matters of chance nor matters of mere monetary convenience, nor, indeed, matters of mere insane, so-called, love; but that the marriage-tie, extending its influence into the future, and being no bond and seal of diseased heredities, should be the bond and seal of a healthier and happier racial progress in every succeeding generation. Now that our women are, by good fortune as well as good policy, made legally mas-

ters of their own property, this sanitary question, involved in marriage, was never so likely to be one of scientific value as it is at this moment, and as it will be in coming days.

We can teach forcibly and faithfully on a different topic regarding which we have a large amount of information collected. We can adopt and urge with all our power our veteran Chadwick's advice to those who are wanting to instruct the young, that it is the perfection of prudence first to live, then to learn. We can insist that, inasmuch as felicity is impossible under mental strain, it is fatal work to press on the young mind the excessive labour which is now in all departments making cram, cram, cram, the footing for knowledge. We can also tell the adult man, struggling for the bubble reputation, that broken sleep and disturbed brain, and wearied muscle and labouring heart, can never exist with felicity: that *sanitas* and *vanitas*, separated by one letter only, are, as the poles, apart from each other; and that, *sanitas sanitatis*, *omnia sanitas* will never be established until, *vanitas vanitatis*, *omnia vanitas*, is blotted out.

We can instil yet one other lesson—last but not the least—into those foolishest of the foolish of the world who think that riches and idleness and power are synonymous with felicity. We can tell these that we who have read the human heart, who have learned by closest observation of fact the lives of men, that no success, no wealth, no power, gained by torture of effort for it, ever brings felicity, and that the Horatian verse,—

"He who would hold the golden mean
And live contentedly, between
The poor man and the great,
Ne'er feels the wants that pinch the poor,
Nor plagues that haunt the rich man's door,
Embittering all his state"—

is as true in these days as it was in the days of the philosopher who wrote it.

Felicity as a Sanitary Research, with all respectful thought I leave it on your memories. You may, perchance, think of the idea as an enthusiasm—a vision. Never mind, so long as you think of it. It will grow upon you as a study, and grow from you as a project, if it once take root. It will strike you in time as the *summum bonum* of sanitary labour; a re-echo of the divine declaration, "On earth peace and goodwill towards men."

APPENDIX.

A WEEK'S DINNERS

For Eight or Ten Persons, including Fish.

SUNDAY.

Barley Broth
Salmon.
Green Peas. Potatoes.
Macaroni (with Cheese).
Rhubarb Tart. Custard Pudding.

MONDAY.

White Soup.
Fried Haddocks.
Haricot Beans. Potatoes.
Savoury Omelette.
Baked Apples. Hominy Blanc Mange.

TUESDAY.

Lentil Soup.
Baked Cod.
Parsnips. Potatoes.
Japanese Eggs.
Jam Roll. Stewed Prunes.

WEDNESDAY.

Potato Soup.
Dry Rice. Baked Tomatoes.
Bread Steaks and Onion Sauce.
Apples in Jelly. Lemon Pudding.

THURSDAY.

Leek Soup.
Fish and Sauce.
Potatoes. Lentil Pudding.
Vegetarian Pie.
Plum Pudding and Pancakes.

FRIDAY.

Haricot Bean Soup.
Fried Whitings.
Potatoes. Brussels Sprouts.
Hominy Fritters.
Stewed Figs. Maizena Blanc Mange.

SATURDAY.

Celery Soup.
Herrings.
Potatoes. Cauliflower.
Poached Eggs and Spinach.
Rice Pudding. Raisins.

RECIPES.

SOUPS.

1. *Barley Broth, or Scotch Soup.*

SET on 5 quarts cold water in a good-sized pot, with ¼ lb. pearl barley (well-washed in *cold* water), ¼ lb. green peas, ¼ lb. haricot beans (both soaked in cold water for 24 hours), ¼ lb. minced onion. When this boils, add ¼ lb. bullet tapioca (or sago), ½ lb. minced carrot, ½ lb. do. turnip, ½ lb. do. cabbage, or other

tender green vegetables (nettles, lettuce, turnip tops). Boil 2 hours, and add (if not thick enough) ¼ lb. rice. Boil twenty minutes longer, and add one large tablespoonful finely chopped parsley, with a little thyme, or other sweet herbs, pepper and salt to taste. No oil or butter is required, if the vegetables are fresh. Must be kept boiling gently all the time till served.

2. *White Soup.*

Three quarts water, ½ lb. minced onion. Boil one hour; add 1 quart milk, 1 oz. parsley, 2 oz. flour, 1 oz. butter or oil; pepper and salt to taste. Boil again for half-an-hour.

3. *Lentil Soup.*

Soak 2 lb. lentils over night; set on with 4 quarts cold water, 1 lb. onions, 2 lb. peeled potatoes. Boil three hours and strain; return to pot with seasoning of salt, pepper, 1 oz. oil or butter. Boil up and serve with plenty sippets of dry toast bread.

4. *Potato Soup.*

Four quarts cold water, 4 lb. potatoes (pared and sliced), 1 lb. onions. Boil two hours, and add 1 oz. butter or oil; parsley, pepper, and salt to taste. Boil till smooth; a little cream may be used instead of butter.

5. *Leek Soup.*

Wash and cut into inch-lengths the best parts of 2 lbs. of leeks. Boil one hour in 3 quarts water; add ½ lb. rice, 1 oz. butter or oil. Boil one hour longer, and serve.

6. *Haricot Bean Soup.*

Soak in cold water, 24 hours, 2 lbs. haricots; set on with 4 quarts cold water, ½ lb. onions, 1 lb. turnips, 1 lb. potatoes. Boil slowly for four hours; flavour to taste.

7. *Celery Soup.*

Make a good stock as follows:—Soak 2 lbs. green peas for 24 hours; set on with 4 quarts cold water, and boil down to 2 quarts; strain and return to pot, and let it come to the boiling point again; add ½ lb. good celery, cut in inch-lengths; herbs as desired; pepper and salt. Thicken with a little flour if preferred, and add, just before using, a teacupful good cream.

SAVOURY DISHES.

1. *Macaroni (au gratin).*

Boil 8 oz. macaroni in plenty *boiling* water, stirring occasionally till soft, but not broken; pour off the water, and turn the macaroni into a pie-dish, or large ashet; cover with 4 oz. grated cheese, 1 desert-spoon parmesan, ½ teacup bread crumbs, 1 oz. salt butter (in little bits equally over the dish). Brown in oven, or in front of fire. Serve *hot.*

2. *Savoury Omelette.*

Make a very smooth batter of 1 oz. of flour, 1 oz. parsley and herbs (as preferred), ½ teaspoon salt, ½ saltspoon pepper (and a dash of mace if liked). Have your omelette-pan hot; pour in 1 oz. oil, or butter—let it be quite hot, but not brown; while heating, break six eggs into the batter, stir lightly with spoon, and pour out into the hot oil. Let it fasten on the under surface, and then draw to cooler part of the stove, or place in oven, to get top-heat. When all set, turn over double on a hot dish, and serve immediately. If it stands long, is apt to be tough and leathery.

Varieties: By adding a dash of onion, a few cold haricots, a little macaroni, or cauliflower sprigs.

3. *Japanese Eggs.*

Boil 6 oz. rice till soft, but not broken; drain, and mix with 3 hard boiled eggs, minced very small, 1 salt-

spoon nutmeg, ½ saltspoon mace, do. pepper, 1 teaspoon salt, 1 oz. flour, moistened smoothly with milk or cream; 1 packet mixed herbs. Thoroughly blend all these ingredients. Have a large plateful of bread-crumbs, made from stale bread, dried in oven and pounded or ground to a fine meal. Take a large spoonful of the mixture, shape it with your hands into the form of an egg, dip it in the crumbs till it will take no more, and lay it aside. The above quantity will make eight eggs. Fry carefully in boiling oil till a rich, golden brown, and drain before the fire. Serve with curry sauce in separate dish.

4. *Bread Steaks and Onion Sauce.*

Cut slices of whole-wheaten bread, six or eight inches long, by two or three broad, and ¾ inch thick. Lay these in a shallow dish, and quite soak them with milk or cream; sprinkle on both sides with powdered herb and parsley, pepper and salt; dip them in egg and bread crumbs, and fry in boiling oil. Must be served immediately, or kept hot, but *not* covered, or will lose their crispness. ½ oz. onions, finely chopped, boiled in a teacupful of water till tender, mix with batter of 1 dessert-spoonful flour, 1 teacup milk, ½ oz. butter or oil, and 1 salt-spoon of salt. Boil up, and serve separately.

5. *Vegetarian Pie.*

Take any kind of vegetables, as turnip, carrot, white part of celery, beet root, onion, mushroom, cauliflower sprigs, in equal proportions. Boil the carrots previously, till nearly tender. Cut all in handy pieces; lay in a deep pie-dish, and cover with a teacupful of sago or crushed tapioca, and a pint of vegetable broth or cold water; season with herbs, pepper, and salt. Make a paste of 1 lb. of flour, 3 ounces oil, or 5 ounces butter (oil is preferable), 1 teaspoonful salt, 1 teaspoonful baking powder, and cold water enough to mix into pretty stiff dough. Avoid handling.

Roll out quickly, cover, and fire, in moderate oven. When the paste is browned enough, cover with thick fold of paper, till ready. If desired, the vegetables may be previously parboiled, but the liquor must be used to bake them in the pie-dish, or the flavour and substance is lost.

Another way is to cover with potato paste or boiled rice—in which cases use a smooth batter of flour and butter, melted and browned, instead of tapioca sauce.

6. *Hominy Fritters.*

Soak over night, in cold water, six or eight ounces hominy. Boil in water till thick, and mix with four eggs (well beaten); season with pepper, salt, a little allspice, and 1 packet sweet herbs. Fry in boiling oil till light brown—enough to make 12 or 16 fritters—serve hot and crisp. Lemon sauce may be used with this dish—juice and grated peel of one small lemon, ½ teaspoonful of sugar, dash of nutmeg, 1 dessert-spoonful of flour, ½ pint of water, ½ ounce of butter.

7. *Poached Eggs on Spinach.*

This dish is too well-known to require details. The spinach should be perfectly fresh, and stewed in no more water than it will take up. The squeeze of a lemon over the dish just before serving, is an improvement when liked.

VEGETABLES.

Vegetables, to be wholesome and nutritious, should be perfectly fresh, and free from decay. It will be found an improvement to stew them in butter or milk, or in very little water, which must be used for sauce or soup as convenient. Onions, turnips, parsnips, celery, cauliflower, retain the full flavour by being cooked in half milk and water, or a little good cream, or fried in oil or butter. Cauliflower (whole) may be stewed in a cupful of water, and when ready, a smooth batter of flour, milk and butter, or oil, salt and pepper (or a

little grated parmesan), may be poured over it, in the dish on which it is to be served. Slightly brown in oven or before fire, and serve very hot; also serve celery, Portugal onions, similarly.

Nettles, prepared as spinach, are equal in flavour and tenderness. The tops only must be used.

All green vegetables are improved by being boiled in water, to which has been added 1 teaspoonful of white sugar, the juice of half a lemon, and very little salt. Unless the bright colour is preferred, stewing is more wholesome than boiling; but when there is soup preparing, the water in which green vegetables have been boiling, may be drained into the soup-pot with advantage (cabbage excepted).

PUDDINGS.

Prunes, raisins, dates, and figs, may be softened in cold water; 1 teacup to the pound of fruit, with prunes and figs. Stalk raisins, but do not stove them. Lay them in pudding-dish, pour the water over them, cover tightly and cook till soft, but not broken, in a moderate oven, or steam them in a can, placed in a pot of boiling water. No sugar is required.

Apples may be simply rubbed dry with a towel, laid in an earthenware dish, and roasted in the oven—requires good apples for this dish. *No sugar* or water to be added—eaten hot or cold.

Apples may also be pared, cored, quartered, and packed in a deep dish—2 ounces of crushed tapioca, 2 ounces sugar, ¼ of a grated nutmeg, or juice of half a lemon; fill up the dish with cold water, and cover tight, or do them in a can in boiling water. The tapioca forms a pleasant jelly, in which the apples are cooked till transparent.

2. *Lemon Pudding.*

1 lb. white-bread crumbs, 4 eggs well beaten, 1 pint of milk, 2 ounces sugar, juice and grated peel of 1

large lemon; mix lightly, and boil in pudding mould two hours. Serve with clear sauce.

3. *Rice Pudding.*

¾ lb. rice, 1 quart milk, 1 pint cold water, or 3 pints milk. Put rice and milk in a deep pudding dish, and bake it in moderate oven, the slower the better. Boiling rice previous to baking loses the delicate flavour. Eat with stewed or baked fruit, or preserves, or broken sugar and milk.

3. *Plum Pudding.*

1 lb. bread crumbs, 1 oz. ground rice, 1 oz. semolina, 1 oz. barley flour, 1 oz. wheaten flour, 1 oz. tapioca, 1 teaspoonful baking powder, 4 oz. raisins, 4 oz. currants, 4 oz. sugar, the juice and grated peel of 1 large lemon or orange, 1 large apple peeled, cored, and sliced small, 1 packet mixed spice, 1 teaspoonful ground ginger. Mix all thoroughly with 1 quart cold water. Steam for three hours. Should be short but dry. May be turned out and placed, on the dish in which it is to be served, in the oven to finish.

5. *Paste for Jam Roll.*

1 lb. flour, 1 teaspoonful baking powder, 2 oz. oil. Stir in the oil with 1 teaspoonful sugar. Mix with cold water, handling as little as possible. Roll out quickly into a large square, spread the jam liberally, wet the edges with egg, roll up quickly, and boil in buttered cloth or tin shape, slightly oiled—2 hours will cook it.

The foregoing recipes are a moderate sample of what may be found in most vegetarian cookery-books, of which improved editions are being constantly issued. See, for latest ideas, the admirable publications of the *Vegetarian Society's Magazine*, as also their *Christmas Annual*, for which intending readers will do well to apply to the Secretary of the Vegetarian Society, 75 Princess Street, Manchester.

SALINE STARVATION, AND HOW TO AVOID IT.

By Charles D. Hunter, M.D., F.C.S., etc.

All manner of foolish things are said against the Vegetarian diet, especially by scientific men who do not wish to try it; but that the following "warning" is against a real danger I can personally vouch for. Though the danger does not essentially depend upon the diet, but on faulty, though very common modes of cooking, it is of such vital importance that food reformers will find in it a clue to many seeming failures. The warning referred to, which went the round of the medical journals with the usual amount of "chaff," is that Professor Gubler in his study of the cretaceous degeneration of the arteries, has found it most common, and at earlier ages among the French peasantry and other vegetable-eating people.

No one dies now-a-days over fifty years of age without showing evident signs of arterial degeneration, and few reach forty perfectly free from it. It is not uncommon in young people; and in young children —infants, who die of atrophy or marasmus, it is almost invariable. Doubtless, our pathologists are more numerous, and probably more exact, than they were fifty years ago; but it does seem as if this degeneration of tissue, this semi-death of some of our organs, were terribly more common than it used to be. As the consumption of flesh meat is also much more common, there must be deeper causes than any Professor Gubler had assigned.

There are many forms of degeneration, and whilst the causes of most are very obscure, some are evidently due to faulty food. Many forms frequently coexist, and seem at times to be but different stages of the same process, which gives hope that in avoiding one we may avoid all.

One form of degeneration seems to be due to saline starvation. Physiologists have talked too much of the nitrogen and carbon of food, of which few can escape getting enough, if they can get food at all. But of the other half-dozen elements, all equally essential to life, and some more essential to health, we have heard but little since Liebig died. And yet some of these are the very elements which many who try to be well fed are starved in. Some are exceedingly soluble, and thus easily lost by careless or foolish cookery; and others reside most in or near the skin or husk, which a false taste excludes from our tables.

Vegetarians who dine at ordinary tables, where exclusion of animal food is the only selection they can make, are especially liable to suffer. It is an old and a cruel experiment, that of the French academicians, who fed dogs on washed flesh-meat until they died of starvation. The poor animals soon became aware that it was not food, and refused to eat it. Were our instincts as natural, no charming of the eyes, or tickling of the palate by our cook would persuade us to swallow those washed and whitened foods that deceive us into weakness.

Analyses of the liver, and other important vital organs, after death, show that in some diseased states these organs contain only one-half of certain saline matters that are invariable in the healthy organ. And not only so, but that in proportion to this deficiency, the organ is useless for its work. In fact, as the organ changed its tissue (as does every part of the body every three or four years), and was compelled to renew itself in the absence of sufficient potash and phosphates, it did its best to preserve its form and structure much as a fossil does. It rebuilt itself best as it could of such material as would make tissue with the minimum of potash; but such tissue, whilst useful and conservative in retaining the form, elasticity, and con-

tractility of the organ, is as useless for secretion and excretion as a fossil liver.

Not only the liver, but the kidneys, spleen, and brain, and the small blood-vessels in every part of the body, share in this degeneration of tissue; and strangely enough (and not unlike the French experiment), this amyloid, waxy, or lardaceous tissue is indigestible by the gastric juice. It is *washed flesh* made inside of the body, and is good for nothing either dead or alive.

The washed flesh fed to those poor dogs contained abundance of nitrogen and carbon; but these alone, as Liebig remarked, were as useless as stones in the absence of saline matters—not of common salt, be it remembered, for that is found in excess in the fossil organs mentioned. The essential salines that can be readily washed out of food are chiefly two—potash salts and alkaline phosphates. These are also the two that are found deficient, about fifty per cent., in the waxy form of degenerated tissue. This is the type most common in atrophied children, and in persons suffering from consumption, and other wasting diseases; but it is not uncommon in the capillaries and small arteries of many who *seem* in health.

When vegetables are soaked in cold water to keep them fresh, when they are blanched in hot water to please our eye, or when they are well boiled and their essence drained off that we may eat the depleted residue, those soluble salines are almost entirely extracted. And what are left? Chiefly the less soluble salts of lime and magnesia—just those elements so abundant in the cretaceous degeneration of blood-vessels. Potash is the alkaline element of formed tissue; its absence is one great cause of scurvy, as well as of the waxy, and perhaps the cretaceous types of degeneration. A little examination of our modern commoner foods will show how deficient they are in this element.

Bread was, I suppose, at one time the "staff of life," but it could hardly have been white bread. Of it 1 lb. contains about 7 grains of potash, or nearly 20 grains less than a pound of brown bread. Potatoes, if peeled, steeped, and boiled in plenty of water, contain only about 21 grains in the pound, as against 37 if boiled in their skins. The skins surpass the centre about fourfold in salines. Cabbages and all leafy vegetables lose much more, as the water goes through every portion of them.

Arrowroot, cornflour, and most of those prepared foods are more deceitful than the washed flesh of the French academicians. Stewed fruits, as made by some cooks, are also guilty of the wash. Even porridge, haricot beans, peas, etc., are by some cooks soaked when raw, and thus much depleted. No wonder if this generation finds itself degenerating. Like a ship built of rotten timber, such a man goes all very well in good weather, and with a light load; but when one can neither bear an average load, nor undergo unusual fatigue, let him cross-question his cook.

Not all suffer equally. Some soon fail, whilst others seem endowed with such first-class viscera that they never seem to feel the loss. Those of a rheumatic type suffer most, because there is in them an inherited tendency to the formation of uric acid, and other poisons, due to mal-assimilation. Now, experimentally (not on dumb animals, but on men), it is found that potash, and especially its organic salts, has great power to dissolve out and remove from the body those gouty and rheumatic blood-poisons. Therefore, those of this type exposed to saline starvation are liable to the many-headed sufferings of those diseases—dyspepsia, nervous-irritability, pains in any and every part of the body, neuralgia, sciatica, lumbago, gravel, rheumatic fever, heart-disease, and calculus. But I must stop. A page could easily be filled with a list of the

Protean maladies due to this condition. Others who suffer, while not inclined to the rheumatic diathesis, tend rather to the anæmic class of diseases, and suffer from pallor, weakness, inability to endure fatigue, etc. In the more extreme cases they exist rather than live, rousing up now and then under some stimulus only to relapse next day into greater weakness.

There are some foods especially abundant in potash salines, and for the benefit of those suffering from, or liable to suffer from their loss, it may be well to know these and how to use them. Easiest of use and ready to hand is bran tea. It is easy to purchase bran in any large city, and to make a strong infusion of it at the rate of a good tablespoonful per head. This is especially rich in both potash and soluble phosphates, the two most important and easiest to be lost of the food salines.

GRAINS OF POTASH AND PHOSPHATES PER POUND.

	Potash.	Phosphoric Acid.
Bran	93·1	201·6
Beans	80·5	55·3
Flax Seed	72·8	91·0
Peas	68·6	61·6
Rye Flour	45·5	59·5
Cabbage Heads	42·0	14·0
Barley Flour	40·6	66·5
Potato	39·2	12·6
Beets	30·1	5·6
Oatmeal	29·4	38·5
Carrots	22·4	7·7
Turnips	21·0	7·7

The above are all *rich* in potash, but other things (fruits, etc.), containing less, may yet supply more by the larger quantity one may eat, and by the absence of or by the mode of cooking, avoiding any risk of loss. The fruits best to use for this purpose are, in order of richness—strawberries, greengages, plums, pears, and oranges; and of vegetables, rhubarb, celery, lettuce, endive, watercress, and dandelion.

Vegetables of all kinds should be cooked in soups only, for the water gets the *quality* of the vegetable, though the solid part may retain the quantity. Dyspeptics, who say they cannot eat vegetables will find the strained soup of them quite light, easily made pleasant, and of more value to them by far than the boiled vegetable itself.

I notice that some commend a baking powder of phosphoric acid and lime. Avoid it; we have generally more lime in our food than we can use; a good tartaric acid baking powder is far better, it turns in the blood to a carbonate; and Liebig pointed out that alkaline carbonates were able to react on the insoluble phosphate of lime in the bowel, and make a soluble alkaline phosphate from it. Abundance of phosphate of lime passes away in the bowel unused, but the organic salines of fruits, etc., can react on it, and make use of the phosphoric acid, rejecting the excess of lime.

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